3rd Familial Mediterranean Fever Meeting

ABSTRACT BOOK

Cerrahpasa Rheumatology Society 1983

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INVITATION

SCIENTIFIC PROGRAMME

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Dear Colleagues,

We are so happy to announce that the **III. Familial Mediterranean Fever Meeting** will be held in İstanbul, from 8th to 10th of May 2026. One of the major take-home messages agreed by all the attendees of FMF2024 was that there was a need for a meeting dedicated mainly to FMF every two years. It deserves special attention not only because of its disease oriented problems that need to be discussed vastly but also because of its potential to inspire.

The third meeting will mainly concentrate on diagnosis and treatment of FMF. Diagnosis continues to be a topic of interest even after all these years of inspection and investigation. This is a discussion with a spectrum that encompass many aspects related to diagnosis such as pathogenesis, genetics, differential diagnosis, prognosis, treatment, nomenclature …

We still need new, additional data to answer such questions as, can we stop colchicine, when, in whom and how? Do we need to continue colchicine with anti IL-1 agents? How to treat arthritis in FMF? What about treatment of amyloidosis? What do we expect from new agents? And such…

One of the goals of this up coming meeting is to initiate study groups that will gather investigators from various backgrounds who look for answers to shared questions. We are open for your proposals for topics you feel to be handled by a study group.

We are looking forward to meet you all in FMF2026 to welcome the beautiful hues of İstanbul spring.

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Abdurrahman Tufan
Fatoş Yalçınkaya

The names above are listed in alphabetical order by surname.

SCIENTIFIC PROGRAMME

May 8, 2026 (Friday)		
13:30 – 14:00	**Session 1 – Opening Session**	
13:30 – 13:40	Welcome	Huri Özdoğan
13:40 – 14:00	FMF, Bird's Eye View	Ahmet Gül
14:00 – 16:00	**Session 2**	Chairs: İzzet Fresko, Ahmet Gül
14:00 – 14:30	Is Geography Destiny?	Nükhet Varlık
14:30 – 15:00	How to Study the Impact of Enviromental Factors on Disease Phenotype?	Thomas Henry
15:00 – 15:20	FMF in the Fields	Huri Özdoğan
15:20 – 15:30	Q&A	
15:30 – 15:40	Oral Presentation Direct Ancient DNA Evidence of MEFV Variants in the Ancient City of Laodikeia, Western Anatolia	Selçuk Yüksel
15:40 – 16:10	**Coffee Break**	
16:10 – 17:10	**Session 3**	Chairs: Gökhan Keser, Kenan Barut
16:10 – 16:40	Last 2 years review: Basic science	Yelda Bilginer

16:40 – 17:10	Last 2 years review: Clinical Science	Özgür Kasapçopur
17:10 – 17:55	**Session 4**	Chairs: Hasan Yazıcı, Melike Melikoğlu
17:10 – 17:25	Knowing What We Do Not Know	Hasan Yazıcı
17:25 – 17:55	Clinical Diagnosis Through the Brush of the Renaissance Painters and Beyond	Eldad Ben Chetrit (Online)

May 9, 2026 (Saturday)		
08:30 – 10:00	**Session 5**	Chairs: Seza Özen, Eda Tahir Turanlı
08:30 – 08:50	Pyrin Inflammasome Activation and Its Regulation	Mohamed Lamkanfi
08:50 – 09:00	Q&A	
09:00 – 09:20	Challenges in Variant Interpretation and Speck-Seq Analysis	Thomas Henry
09:20 – 09:30	Q&A	
09:30 – 09:50	Significance of Heterozygous Patients in FMF	Seza Özen
10:00 – 10:00	Q&A	

10:00 – 10:30	**Coffee Break**	
10:30 – 12:10	**Session 6**	Chairs: Thomas Henry, Cengiz Korkmaz, Fatoş Önen
10:30-10:50	FMF and Clonal Hematopoiesis	Sophie Georgin-Lavialle
10:50 – 10:55	Q&A	
10.55 – 11:15	FMF as an Inflammatory Immune Dysregulation Disorder	Sulaiman Al-Mayouf
11:15 – 11:20	Q&A	
11:20-11:40	The Smoldering Fire: Subclinical Inflammation	Helen Lachmann
11:40 – 12:00	Monitoring Inflammation: CRP and Beyond	Tilmann Kallinich
12.00 – 12:10	Q&A	
12:10 – 12:40	**Proceutica Satallite Symposium** PROCEUTICA Use of Kineret in Colchicine-Resistant Patients – Clinical Experience and Case Studies Speaker: Abdurrahman Tufan	Chairs: Ahmet Gül

12:40 – 13:30	**Lunch & Poster Tour and Poster Reviewing** **Group – I** **Group – II** **Group – III** **Group – IV**	Chairs: Raffaele Manna, Erbil Ünsal Isabelle Kone-Paut, Hakan Babaoğlu Halide Özge Başaran, Piero Portincasa Gizem Ayan, Mehmet Yıldız
13:30 – 14:20	**Session 7**	Chairs: Özgür Kasapçopur, Banu Balcı-Peynircioğlu
13:30 – 13:40	Autoinflammatory Diseases Involving the Pyrin Inflammasome	Ahmet Gül
13:50 – 13:55	Q&A	
13:55 – 14:15	PFAPA, SURF and FMF	Marco Gattorno
14:15 – 14:20	Q&A	
14:20 – 15:25	**Session 8**	Chairs: Helen Lachmann, Raffaele Manna, Erbil Ünsal
14:20 – 14:40	FMF in Isolated Populations	Piero Portincasa

14:40 – 14:55	Differential Diagnosis of FMF in FMF-Prevalent Regions	Abdurrahman Tufan
14:55 – 15:10	Differential Diagnosis of FMF in Low-Prevalence Regions	Charalampia Papadopoulou
15:10 – 15:25	Q&A	
15:25 – 15:55	**Coffee Break**	
16:00 – 17:00	**Session 9**	Chairs: Serdal Uğurlu, Charalampia Papadopoulou
16:00 – 16:20	Colchicine, Inflammation and Atherosclerosis: Is FMF an Exception Which Proves the Rule?	Eldad Ben-Chetrit (Online)
16:20 – 16:30	Q&A	
16:30 – 16:50	Real life data: Anti–IL-1 Agents in FMF	Betül Sözeri
16:50 – 17:00	Q&A	
17:00 – 17:45	**Oral Presentations**	**Chairs: Yeşim Özgüler, Ezgi Özgün**
	Study of 34 prospective pregnancies in women receiving IL-1 inhibitors for systemic autoinflammatory diseases and comparison to unexposed pregnancies (GR2 study)	Marion Delplanque
	Functional testing of primary monocytes can distinguish healthy controls from patients with cryopyrin associated	Megan Sallows

	periodic syndrome (CAPS) and familial mediterranean fever (FMF)	
	Familial Mediterranean Fever in Italy, Turkey, and Lebanon: a cross population analysis of genetics and clinical features.	Nour Jaber
	Long-Term Outcomes of Living Related Kidney Donors to Recipients with AA Amyloidosis Due to Familial Mediterranean Fever	Özgur Akin Oto
17:45 – 18:35	**Session 10**	Chairs: Mikhail Kostik, Cemal Bes
17:45 – 18:05	Update: Treatment of AA Amyloidosis	Serdal Uğurlu
18:05 – 18:25	Management of Special Cases with Amyloidosis	Sophie Georgin-Lavialle
18:25 – 18:35	Q&A	

May 10, 2026 (Sunday)		
08:30 – 10:00	**Session 11**	Chairs: Marco Gattorno, Duygu Ersözlü
08:30 – 08:50	The Challenge to Treat FMF with Spondyloarthritis, PSA	Umut Kalyoncu
08.50 - 09.00	Q&A	

09:00 – 09:20	Pros and Cons of Registries	Isabelle Kone Paut
09:20 – 09.30	Q&A	

09:30 – 10:30	**Oral Presentations**	**Chairs: Nihal Esatoğlu, Betül Sözeri, Gülay Özgön**
	IL-1 Inhibitor goflikicept in familial Mediterranean fever: results of the phase 2 international randomized trial.	Serdal Uğurlu
	Definition of overlapping and mixed autoinflammatory disorders in patients carrying multiple autoinflammatory variants in a cohort of 483 patients followed at a tertiary referral centre.	Berşan Şen
	Mortality in Familial Mediterranean Fever in the Contemporary Era: Comparison with the General Population and Independent Predictors of Survival	Ozgur Can Kilinc
	Multi-omics profiling reveals selective $CD16^{+}$ NK-cell collapse and TNF-driven apoptotic rewiring during Familial Mediterranean Fever flares	Zhicheng Zhou
	Real-world effectiveness of IL-17 antagonists in familial Mediterranean fever–associated inflammatory conditions	Burak Karakaya
	Investigating the cellular basis of colchicine resistance in FMF patients	Aysima Atilgan Lulecioglu
	Completed suicide with colchicine in familial Mediterranean fever: demographic, clinical, and post-mortem features	Berkay Aktaş

	Clinical Characteristics of Pediatric Patients with P369S/R408Q Mutation: A Single-Center Experience Across the FMF and PFAPA Spectrum	Atike Berra Mert
10:30 – 11:00	**Coffee Break**	

11:00 – 12:10	**Session 12**	Chairs: Tilmann Kallinich, Levent Kılıç
11:00 – 11:30	Compliance and Transition	Ömer Karadağ / Amra Androvich
11:30 – 12:00	Treatment Cessation in Patients with FMF	Nuray Aktay Ayaz
12:00 – 12:10	Q&A	
12:10 – 13:25	**Session 13**	Chairs: Huri Özdoğan, Ahmet Gül
12:10 – 12:25	Bosphorus Project	Project Working Group
12:25 – 12:40	Research Agenda in EULAR Recommendations	Erdal Sağ
12:40 – 13:00	Review of the Meeting	Sezgin Şahin
13:00 – 13:15	Abstract Awards	Serdal Uğurlu

13:15 – 13:30	Closing: Future Perspective	Huri Özdoğan, Ahmet Gül, Eldad Ben-Chetrit
13:30 – 14:30	**LUNCH**	

ORAL PRESENTATIONS

OP-01

Direct ancient DNA evidence of MEFV variants in the ancient city of Laodikeia, Western Anatolia

[1]Selçuk Yüksel, [2]Celal Şimşek, [3]Gökhan Ozan Çetin, [3]Samet Türel, [4]Tülay Becerir, [5]Semra Ayduran, [6]Gülşah Kılbaş, [7]Seza Özen

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Objective: Familial Mediterranean Fever (FMF) is associated with variants in the MEFV gene, but direct evidence from ancient human remains scarce. We investigated the presence and distribution of MEFV variants in ancient individuals from Laodikeia, an ancient city in western Anatolia (mid-3rd century BCE to early 7th century CE), represented here by burials dated to the 1st–5th centuries CE.
Materials and Methods: Forty-two individuals from four necropolis sectors were included. Molar teeth were processed under ancient-DNA clean-room conditions. Following decontamination and extraction, the MEFV gene was analyzed by targeted next-generation sequencing using a dedicated panel. Authenticity was assessed by fragment length and terminal damage patterns, and variants were interpreted according to ACMG 2015 criteria.
Results: MEFV variants were detected in 21/42 individuals (50%). E148Q was the most frequent finding, with clustering mainly in the western necropolis, where 15/19 individuals (79%) carried at least one MEFV variant within a shared multi-individual tomb context. This pattern is more appropriately interpreted in relation to tomb reuse and possible familial burial structure over time than as an isolated population-level frequency signal. Clinically relevant variants, including M694V, V726A, R761H, and P369S, were also identified across different necropolis sectors. In the northeastern necropolis, composed of individual graves dated to the 1st century CE, 5/15 individuals (33%) were positive, including carriers of M694V, V726A, and R761H.
Conclusion: This study provides direct ancient DNA evidence of MEFV variation in western Anatolia during the Roman-Early Byzantine period. Beyond the clustered E148Q signal, the detection of clinically relevant variants in distinct burial contexts supports the presence of FMF-associated genetic variation in ancient Laodikeia. These findings add a direct archaeogenetic layer to the long-term history of MEFV in this region and support future genome-wide and kinship-based analyses.

OP-02

Long-Term Outcomes of Living Related Kidney Donors to Recipients with AA Amyloidosis Due to Familial Mediterranean Fever

Ozgur Akin Oto[1], Tuba Elif Ozler[2], Arzu Velioglu[3], Dilek Barutcu Atas[3], Gizem Kumru[4], Abdulmecit Yildiz[5], Sultan Ozkurt[6], Rabia Hacer Hocaoglu[1], Yagmur Tahillioglu[1], Vefa Suleymanova[1], Muge Doksan[1] ,Zeynep Celebi[7], Ayse Serra Artan[1], Safak Mirioglu[1], Ahmet Burak Dirim[1], Halil Yazici[1], Krista L. Lentine[8]*, Yasar Caliskan[1,8]*
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Corresponding
*-Co-senior AuthorsRunning Title: Outcomes of FMF-Related Living Kidney Donors

ABSTRACT

Background: Living kidney donation among carefully selected individuals is generally considered safe, but post-donation health risks vary by factors including family history. Data on long-term outcomes of living-related donors of kidney transplant recipients with Familial Mediterranean Fever (FMFLRD) are limited. Methods: This retrospective multicenter study reviewed medical records of living donors who donated between 2010 and 2021 across six transplant centers. Cardiovascular and kidney outcomes were compared between 37 FMFLRD and a propensity-matched control group of 74 donors to recipients without FMF (non- FMFLD). Propensity score matching was based on donor age, sex, and follow-up time. Outcome measures included major cardiac events (MACE), new-onset hypertension, new- onset diabetes mellitus, proteinuria, and estimated glomerular filtration rate (eGFR).

Results: The median follow-up duration of all donors was 4.0 years (IQR, 4.0- 11.0). The mean age of FMFLRD group was 48.9±9.3 years, The FMFLRD group showed a significantly lower incidence of MACE (2.7% vs. 17.6%, p=0.026) and new-onset hypertension (13.5% vs. 39.2%, p=0.004) and a trend toward lower incidence of new-onset diabetes mellitus (2.7% vs. 14.9%, p=0.052) compared to the non-FMFLD group. There were no significant differences in long-term kidney function, as evidenced by similar eGFR and proteinuria levels between the groups.

Conclusions: FMFLRDs show more favorable outcomes regarding the frequency of MACE, hypertension, and possibly diabetes mellitus compared to matched non- FMFLDs, while exhibiting a similar risk of kidney-related outcomes. Genetic and environmental factors within donor families may contribute to the higher rates of cardiovascular and metabolic complications observed in the non-FMFLD group after donation.Keywords: Familial Mediterranean fever; cardiovascular outcomes; genetics; kidney transplantation; living donors.

OP-03

Familial Mediterranean Fever in Italy, Turkey, and Lebanon: a cross-population analysis of genetics and clinical features.

Nour Jaber[1], Vita Giordano[1], Berkay Kilic[2], Lara Yagci[2], Admir Ozturk[2], , Hala Abdallah[1], Laura Mahdi[1], Ahmad Daher[4], Mohamad Khalil[1], Alessandro Stella[3], Agostino Di Ciaula[1], Serdal Ugurlu[2], Piero Portincasa[1]

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[4] Rammal Rammal Laboratory, ATAC group, Faculty of Sciences, Lebanese University, al-hadith campus, Beirut, Lebanon.

Background: FMF is an autoinflammatory disease linked to the MEFV gene, predominantly observed in populations of the Mediterranean basin. The underlying mutational heterogeneity exerts a substantial impact on phenotypic expression, differing markedly between cohorts.

Aim of the study: To evaluate genetic patterns and clinical features across 1,564 individuals originating from Italy (primarily Apulia), Turkey, and Lebanon.

Methods: 165 Italian (age 38.5±1.6 years, 54.5% female), 1,121 Turkish (age 40.4±0.3 years, 62.5% female), and 278 Lebanese patients (age 27.0±0.9 years, 62.2% female) were interviewed for genetic and clinical features at each referral center.

Results: The R202Q variant was the most prevalent in Italians (21.9%) and present in 11.5% of the Turkish cohort, but completely absent in the Lebanese cohort. The pathogenic M694V variant was the most prevalent in Turkish (33.5%) and Lebanese subjects (18.9%). The Italians and Turkish patients had a comparable age at diagnosis (29.4±1.6 vs. 25.0±0.4 years), age at onset (20.8±1.4 vs. 16.7±0.3 years), and diagnostic delay (8.4±0.9 vs. 8.3±0.3 years, p=NS), respectively. In contrast, all three parameters were significantly lower among Lebanese patients (age at diagnosis: 12.5 ± 0.6 years; age at onset: 15.4 ± 0.6 years; diagnostic delay: 2.9 ± 0.3 years; $p<0.05$). The mean annual frequency of attacks varied significantly among the three cohorts, with the lowest in Italians compared to Lebanese and Turkish patients (12.4±0.8 vs. 15.6±0.6 vs. 19.9±0.6, $p<0.05$, respectively). Fever, thoracic pain, myalgias, and arthralgias were more prevalent in Lebanese than Italian and Turkish cohorts ($p<0.05$). Colchicine was the first-line treatment, while anti-IL-1 agents (canakinumab, anakinra) were used in 3.2%, 7.0%, and 0.4% of Italian, Turkish, and Lebanese patients, respectively.

Conclusions: The severe disease course in Lebanese and Turkish patients may be due to genetic and demographic differences. These findings show how sociocultural and historical factors shape FMF genotypes and influence clinical presentation and progression.

OP-04

Functional testing of primary monocytes can distinguish healthy controls from patients with cryopyrin associated periodic syndrome (CAPS) and familial mediterranean fever (FMF)

Megan Sallows[1], Siobhan Burns[1], Helen Lachmann[2]
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Purpose
Accurate diagnosis of monogenic autoinflammatory diseases such as CAPS and FMF is essential to ensure appropriate treatment and avoid misuse of costly targeted therapies. Many patients have genetic variants that have yet to be classified and therefore cannot be clinically actionable. The aim of this work was to explore functional inflammasome assays as an effective method to differentiate patients with inflammasomopathies from a healthy control cohort.

Materials and methods
Primary monocytes were isolated from peripheral blood of patients and healthy controls. We quantified levels of caspase-1 activation in primary monocytes using the FAM-FLICA caspase-1 kit before and after LPS and ATP stimulation. Cell culture supernatant was evaluated with the DuoSet IL-1β ELISA to measure IL-1β secretion. Statistical comparisons were performed using a one tailed Welch's t test.

Results
We established a healthy range (n=10) for caspase-1 activation with a significant difference between unstimulated and stimulated samples ($p<0.0001$). We similarly determined a baseline healthy range (n=8) for IL-1β secretion with a significant increase observed after monocyte stimulation ($p<0.01$). In contrast, monocytes isolated from patients with CAPS or FMF displayed elevated caspase-1 activation and IL-1β secretion at baseline ($p<0.0001$) with further increases also observed after stimulation ($p<0.0001$) compared to healthy controls.

Conclusions
Monocytes from CAPS and FMF patients demonstrate dysregulated inflammasome activation compared to healthy controls. Functional measurement of caspase-1 activation and IL-1β secretion may therefore support diagnosis of inflammasomopathies and aid classification of variants of uncertain significance.

OP-05

Study of 34 prospective pregnancies in women receiving IL-1 inhibitors for systemic autoinflammatory diseases and comparison to unexposed pregnancies (GR2 study).

Delplanque M[1] MD, Savey L[1] MD, Sobanski V[2] MD PhD, Lazaro E[3] MD PhD, Grandpeix- Guyodo C[1] MD, Murarasu A[4] MD, Flipo RM[5] MD PhD, Fain O[6] MD PhD, Hachulla E[2] MD PhD, Le Guern V[4] MD, Guettrot-Imbert G[4] MD, Molto A[7] MD, Camille Le Ray[9] MD PhD, Costedoat-Chalumeau N[4] MD PhD, Georgin-Lavialle S[1] MD PhD, the GR2 Study Group

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8 Université Paris Cité, AP-HP, Port Royal Maternity, Cochin Hospital, Paris, FranceAbstract

Introduction
Interleukin-1 (IL-1) inhibitors are widely used in autoinflammatory diseases (AID) such as Still's disease and monogenic inflammasomopathies, including cryopyrinopathies and familial Mediterranean fever. As these conditions frequently affect women of reproductive age and data are limited, concerns remain regarding anti–IL-1 therapy safety during pregnancy. We aimed to evaluate maternal and neonatal outcomes in women exposed to anti–IL-1 therapy during conception and pregnancy.

Methods
This prospective observational study included pregnant women from the GR2 prospective cohort, spanning 76 French centers before September 2024. Women exposed to anti-IL-1 therapy during conception or pregnancy were selected. Maternal and obstetrical outcomes were compared with a 1:1 matched control group of unexposed women with similar conditions, and with the nationwide 2021 French National Perinatal Survey.

Results
Thirty-four pregnancies (three twin pregnancies) in 30 women were exposed to anakinra (n=30) and/or canakinumab (n=5) for till's disease (n=15), familial Mediterranean fever (n=15), cryopyrinopathies (n=3), undifferentiated systemic AID (n=2), TNF receptor-associated periodic syndrome, and recurrent pericarditis (n=1 each). Reported outcomes included infections (n=6), intrahepatic cholestasis (n=3), gestational diabetes (n=2), gestational hypertension (n=1), and intrauterine growth restriction (n=1). Median gestational age was 39.4 weeks, with five preterm births between 32 and 37. One baby was diagnosed with laryngomalacia but did not require surgery. Pediatric follow-up (33 babies to 6 months, 30 thereafter for a median of 14.5 months [13–24]) confirmed normal infant development. Maternal and obstetrical outcomes did not differ between treated with anti-IL-1 and untreated with anti-IL-1 patients with AID.

Conclusion
Anti-IL-1 therapy, particularly anakinra, appears safe during pregnancy in women with systemic AID.

OP-06

IL-1 inhibitor goflikicept in familial Mediterranean fever: results of the phase 2 international randomized trial

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Mikhail Samsonov[10], Ahmet Gul[11]

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Objective: Goflikicept (GFC) is a novel fusion protein inhibiting interleukin-1 (IL-1). This study evaluated its efficacy and safety in patients with monogenic autoinflammatory disorder, Familial Mediterranean Fever (FMF).

Materials and Methods: In this international, multicenter, double-blind study, adults with colchicine-resistant or -intolerant FMF and ongoing disease attacks were randomized to receive subcutaneous GFC (160 mg – day 0, 80 mg – day 7, 80 mg – day 14, then 80 mg every 2 weeks) or placebo for 16 weeks. A marker FMF attack was defined as Physician Global Assessment (PGA) ≥2 and C-reactive protein (CRP) >10 mg/L. Patients with unresolved/recurrent attacks were unblinded and placebo recipients switched to GFC. Primary endpoint: proportion achieving complete treatment response (marker attack resolution with no new attacks).

Results: Thirty-three patients were randomized (GFC: n=16; placebo: n=17). Twenty-nine completed the study; 4 discontinued prematurely (3 in GFC arm: prohibited medication, inefficacy, AE). Concomitant colchicine use was similar (GFC: 93.8%; placebo: 88.2%; p>0.99). The M694V MEFV variant was present in 81.2% (GFC) and 64.7% (placebo) of patients (p=0.438). Baseline mean (SD) PGA scores were 2.9 (0.4) for GFC and 3.2 (0.5) for placebo (p=0.163); mean CRP was 80.7 (58.2) mg/L and 49.7 (72.3) mg/L (p=0.0037). Complete response occurred in 68.8% (11/16) GFC patients versus 11.8% (2/17) placebo patients (p=0.001). After switching placebo to GFC, no recurrent attacks occurred. Most GFC patients achieved PGA <2 and CRP ≤10 mg/L (Fig. 1, 2). AEs occurred in 75.0% (GFC), 17.6% (placebo), and 53.3% (switched) patients; most were mild/moderate. One serious AE (inflammation) occurred in a switched patient; one GFC patient discontinued due to diarrhea. GFC showed a safety profile consistent with other IL-1 inhibitors and no new safety signals.

Conclusion: Treatment with GFC significantly decreased disease activity versus placebo in colchicine-resistant/intolerant FMF patients, with a safety profile aligning with established IL-1 inhibitors.

OP-08

Definition of overlapping and mixed autoinflammatory disorders in patients carrying multiple autoinflammatory variants in a cohort of 483 patients followed at a tertiary referral centre

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Objectives: Broad genetic testing in suspected systemic autoinflammatory disease (SAID) increasingly identifies individuals carrying variants in more than one SAID-associated gene, creating diagnostic uncertainty when the phenotype does not fit a recognised disorder. We aimed to propose an operational definition for mixed autoinflammatory disorder (MAID) and describe the clinical and genetic spectrum of multi-variant SAID cases in a UK tertiary referral cohort.[1]

Methods: We reviewed 483 consecutive patients evaluated for suspected SAID between December 1997 and May 2024. Patients harbouring variants in ≥2 SAID-associated genes were re-phenotyped and classified as: Group 1, a SAID phenotype with additional variants; Group 2, overlapping autoinflammatory disorders (OAID); or Group 3, MAID, defined as recurrent inflammatory disease with blended features not fulfilling classification criteria for any recognised SAID despite expert review.

Results: Thirty-seven multi-variant patients were identified (Group 1, n=9; Group 2, n=1; Group 3, n=27). Group 1 comprised mevalonate kinase deficiency (MKD, n=1), ORAI1-related autoinflammatory syndrome (ORAS, n=1), PLCG2-associated antibody deficiency and immune dysregulation (PLAID, n=1), familial Mediterranean fever (FMF, n=1), and tumour necrosis factor receptor-associated periodic syndrome (TRAPS, n=5), in whom additional variants did not appear to drive the core phenotype. The single OAID case represented a three- disease overlap involving MKD, NLRP12-associated autoinflammatory disease, and PLAID. MAID included PFAPA-spectrum disease (n=8), FMF-like disease (n=7), Behçet/Crohn disease-like phenotype (n=1), and heterogeneous unclassified inflammatory phenotypes (n=11). The most frequent variants involved MEFV (n=12) and NOD2 (n=11).

Conclusion: MAID is a pragmatic label for multi-variant patients with blended inflammatory phenotypes who do not meet criteria for a recognised SAID. A standardised definition may improve multicentre comparability and guide therapeutic escalation.Reference 1: Amikishiyev, Shirkhan, et al. "Phenotypes of patients with more than one autoinflammatory disease-associated gene variant: overlapping and mixed autoinflammatory disorders." *Rheumatology* 65.2 (2026): keaf582.

OP-10

Mortality in Familial Mediterranean Fever in the Contemporary Era: Comparison with the General Population and Independent Predictors of Survival

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Background: Familial Mediterranean Fever (FMF) is an autoinflammatory disease characterized by a hyperinflammatory state predisposing the untreated patients to secondary amyloidosis.

Objectives: This study aimed to compare mortality among patients with FMF and the general population of Türkiye and to identify factors associated with mortality in FMF patients.

Methods: A total of 1162 FMF patients followed at Cerrahpasa Faculty of Medicine between 1985 and 2023 were retrospectively evaluated. The primary outcome was all-cause mortality. To evaluate this, we calculated the Standardized Mortality Ratio (SMR) using age- and sex-matched data from the general population of Türkiye as a reference. Secondary analyses included Kaplan-Meier survival estimates and Cox proportional hazards regression to identify independent predictors of mortality.

Results: Patient characteristics are summarized in figure 1. Females constituted the majority (61%). Mean follow-up duration was 9.0 ± 4.3 years. During a total follow-up of 11670 person-years 24 deaths were observed in FMF patients compared with 21.02 deaths based on age- and sex-matched mortality rates of the Türkiye's general population. The overall SMR was 1.142 (95% CI: 0.685 - 1.599, p-value: 0.51) indicating similar mortality rates in FMF patients compared to the general population. Time-dependent analysis revealed no significant difference in mortality across the observed calendar periods (pre-2010, 2011–2017, and 2018– 2023; $p > 0.05$ for all). When stratified by the pandemic, the crude mortality rate was significantly higher in the post-COVID period (3.48 vs. 1.13 deaths per 1,000 person-years; Incidence Rate Ratio: 3.08, p=0.01). However, this significance disappeared when adjusted for age using a time-dependent Cox regression model (HR: 1.04, p=0.76).Cause of death was available for 23 patients; infectious causes emerged as the most common (60.9%), followed by trauma (13%), cardiovascular events (13%), liver failure (8,7%), and malignancy (4,3%). Deceased FMF patients had significantly higher rates of male gender (66.7% vs. 38.4%, p=0.009), amyloidosis (45.8% vs. 4.0%, p<0.001), chronic kidney disease (CKD) (50.0% vs. 3.6%, p<0.001), M694V homozygosity (54.2% vs. 24.0%, p=0.002), rash (12.5% vs. 3.3%, p=0.049), cardiovascular comorbidities (33.3% vs. 9.7%, p=0.002), solid malignancies (12.5% vs. 0.9%, p=0.002), benign masses (8.3% vs. 1.0%, p=0.028), and other comorbidities (12.5% vs. 2.8%, p=0.033). Age at colchicine initiation was significantly older in deceased patients (37.2 ± 19.4 vs. 25.4 ± 12.4, p=0.003). Kaplan-Meier analysis estimated the overall 10-year survival rate at 98.1%. Survival was significantly reduced in patients with CKD (10-year survival: 83.2% vs. 98.9%, p<0.001), amyloidosis (86.6% vs. 98.7%, p<0.001), M694V homozygous genotype (95.9% vs. 98.8%, p=0.003), solid malignancies (83.9% vs. 98.3%, p<0.001), hematological malignancies (0.0% vs. 98.2%, p<0.001), benign masses (84.6% vs. 98.3%, p<0.001), cardiovascular comorbidities (94.4% vs. 98.5%, p=0.002), and rash (88.7% vs. 98.4%, p=0.002). Male gender was also associated with poorer outcomes (97.0% vs. 98.8%, p=0.01) (Figure 2). In univariate Cox regression analysis, CKD (HR 3.84, 95% CI 1.96–7.54, p<0.001), cardiovascular comorbidities (HR 3.64, 95% CI 1.51–8.77, p=0.004), and amyloidosis (HR 3.09, 95% CI 1.58–6.04, p=0.001) were identified as strong predictors of mortality. M694V homozygosity was associated with a significantly increased risk of death (HR 3.23, 95% CI 1.43–7.26, p=0.005). Other significant risk factors included rash (HR 5.70, 95% CI 1.68–19.32, p=0.005), solid malignancy (HR 4.39, 95% CI 1.22– 15.85, p=0.024), presence of other comorbidities (HR 4.52, 95% CI 1.33– 15.39, p=0.016), older age at colchicine initiation (HR 1.06, 95% CI 1.03– 1.09, p<0.001), and older age of onset (HR 1.04, 95% CI 1.01–1.07, p=0.017). Female gender was a protective factor (HR 0.35, 95% CI 0.15–0.81, p=0.015). In pairwise multivariate Cox regression analyses, CKD (HR range 2.76–3.94) and amyloidosis (HR range 2.20–3.16) remained robust independent predictors of mortality across all models. Additionally solid malignancy remained significant in pairwise multivariate Cox regression analysis against all variables (HR range 3.92–5.92) except two variables related tocompliance to colchicine (Figure 2). Remaining variables that showed significant differences in the previous tests including gender, genotype, and cardiovascular comorbidities failed to impact survival independently. The proportional hazards assumption was verified using scaled Schoenfeld residuals. No significant violations were observed for CKD (p=0.84), amyloidosis (p=0.82), or solid malignancy (p=0.41), confirming the validity of the Cox proportional hazards model.

Conclusions: FMF is not associated with an increased mortality rate, with patients exhibiting similar mortality rates to the general population. Mortality remained stable over time. Strongest individual predictors of mortality are CKD and secondary amyloidosis that are among the preventable complications of the disease. As expected, presence of solid malignancies is another strong predictor of mortality. Despite attenuation by amyloidosis and CKD, homozygous M694V genotype, male sex, cardiovascular comorbidities, older age at colchicine initiation and disease onset, rash reflect a high-risk phenotype and should be considered clinical red flags.

OP-12

TARGETING THE IL-17 CYTOKINE PATHWAY IN FAMILIAL MEDITERRANEAN FEVER–ASSOCIATED INFLAMMATORY DISEASES: A SINGLE-CENTER EXPERIENCE

REAL-WORLD EFFECTIVENESS OF IL-17 ANTAGONISTS IN FAMILIAL MEDITERRANEAN FEVER–ASSOCIATED INFLAMMATORY CONDITIONS

Objective: Familial Mediterranean Fever (FMF) is the most common hereditary autoinflammatory disease, characterized by dysregulated pyrin inflammasome leading to excessive interleukin (IL)-1β production. IL-1β and serum amyloid A (SAA) promote Th17 differentiation and IL-17 production, and increased Th17 polarization has been reported in FMF. The IL-17 pathway may therefore contribute to chronic inflammation and could represent a potential therapeutic target in FMF-associated inflammatory diseases. In this study, we evaluated the use of IL-17 inhibitors (IL-17i) in patients with FMF and concomitant inflammatory conditions.

Materials and Methods: We retrospectively reviewed our FMF cohort to identify patients treated with IL-17 inhibitors and evaluated their demographic, clinical, and laboratory characteristics.

Results: Fifteen patients were identified. All had FMF-associated inflammatory comorbidities, with spondyloarthritis being the most common (73.3%). Secukinumab was used in 14 patients (93.3%), while ixekizumab was used in one patient. During follow-up, treatment was discontinued in 14 patients (93.3%). The most frequent reason for discontinuation was inadequate response to treatment (71.5%), followed by loss of efficacy (21.4%), and an adverse event (emergence of inflammatory bowel disease). Among patients experiencing FMF flares (n = 10), attack frequency remained unchanged in seven patients (70%), increased in two patients, and decreased in one patient. The median C-reactive protein (CRP) level increased from 12.2 mg/L before IL-17i therapy to 20.8 mg/L during treatment.

Conclusions: In this single-center experience, IL-17 inhibitors were primarily used in FMF patients with inflammatory comorbidities. Despite their established efficacy in IL-17–driven diseases, IL-17 inhibition showed limited benefit in controlling FMF manifestations, with high treatment discontinuation rates and no consistent improvement in attack frequency or inflammatory markers. Nevertheless, IL-17 inhibitors may represent a therapeutic option for selected inflammatory comorbidities in patients with otherwise well-controlled FMF.

Table. Characteristics of patients at initiation of IL-17i

Characteristic		n=15
Median age, years		41 (34–43)
Sex, male, n (%)		9 (60%)
Exon 10 mutations, n	Homozygous	6
	Compound Heterozygous	5
	Heterozygous	3
Inflammatory comorbidities, n (%)	Spondyloarthritis (SpA)	9 (60 %)
	Hidradenitis Suppurativa	2 (13.3 %)
	Peripheral chronic arthritis	2 (13.3 %)
	Psoriatic arthritis	1 (6.7 %)
	Juvenile idiopathic arthritis	1 (6.7 %)
HLA-B27 positivity*		2 (22.2 %)
Median concomitant colchicine dose, mg/day		1.25 (1-2)
Use of IL-17i as first line treatment		3 (20 %)
IL-17i therapy treatment line		4 (2-5)
Treatment discontinuation		14 (93.3 %)

*Limited to the SpA subgroup of nine patients.

OP-13

Investigating the cellular basis of colchicine resistance in FMF patients

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Objective: Colchicine, a microtubule-depolymerizing agent, is the standard treatment for Familial Mediterranean Fever (FMF). However, 5-10% of patients exhibit clinical resistance. As pyrin inflammasome activation is regulated by microtubule dynamics, we investigated whether colchicine resistance in patients correlates with cell-intrinsic resistance to colchicine- mediated pyrin inflammasome activation.

Materials and Methods: Primary monocytes and neutrophils were isolated from healthy donors (HD), colchicine-sensitive (CS-FMF), and colchicine-resistant (CR-FMF) patients (n = 3-11 per group). Cells were treated with varying concentrations of colchicine under different incubation periods. Pyrin activation was assessed via Interleukin-1 beta (IL-1β) and real-time measurement of pyroptosis using propidium iodide (PI) uptake. Cytoskeleton organization was evaluated by confocal and super-resolution microscopy. RNA-sequencing (RNA-seq) was performed in HD monocytes to identify colchicine-responsive genes, followed by quantitative polymerase chain reaction (qPCR) validation in FMF cohorts.

Results: Colchicine inhibited pyrin-mediated IL-1β release and pyroptosis in all groups. IC50 values were comparable between HD, CS-FMF, and CR-FMF cells across treatment conditions (all $p > 0.05$). Immunofluorescence analysis showed similar tubulin and actin cytoskeletal remodelling in all groups. Microtubules remained partially depolymerized up to 24 hours after colchicine washout, indicating sustained intracellular drug activity. RNA-seq identified colchicine-responsive genes in HD monocytes, including, SLC16A10, GK5, and ALPK2, which exhibited similar upregulation patterns in CS-FMF and CR-FMF cells, although statistical significance has not yet been reached due to the limited sample size.

Conclusions: Primary cells from colchicine-resistant FMF patients display preserved in vitro responsiveness to colchicine. These findings indicate that clinical colchicine resistance is unlikely to result from cell-intrinsic defects, but may instead involve systemic or pharmacokinetic mechanisms, supporting the need to explore factors influencing drug exposure and therapeutic response in FMF.

OP-14

Clinical Characteristics of Pediatric Patients with P369S/R408Q Mutation: A Single- Center Experience Across the FMF and PFAPA Spectrum

Objectives: This study aimed to describe the clinical features of pediatric patients with P369S/R408Q and compare them with those of patients with M694V/M694V to analyze their phenotypes within the FMF (Familial Mediterranean Fever) – PFAPA (Periodic Fever, Aphthous Stomatitis Pharyngitis, and Adenitis) spectrum.

Materials and Methods
In this retrospective study, children with the P369S/R408Q variant and recurrent fever between 2015 and 2025 at Istanbul University-Cerrahpaşa, Cerrahpaşa Faculty of Medicine, Pediatric Rheumatology Department were included. Demographic and clinical data were obtained from medical records. A comparison group of patients with M694V/M694V was analyzed for genotype–phenotype differences.

Results
Fifty-seven patients carried P369S/R408Q, of whom 47.3% were female. The mean ages at symptom onset and diagnosis were 60.6 months (±39.3) and 82.3 months (±41.4), respectively. The most common symptom was abdominal pain (70.1%), followed by peritonitis in 22.2%. Other features included fever (68.4%), tonsillopharyngitis (54.3%), arthralgia (43.8%), myalgia (36.8%), aphthous stomatitis (29.8%), arthritis (22.8%), chest pain (15.7%), vomiting (15.7%), cervical lymphadenopathy (12.2%), and rash (12.2%). Among 62 patients with the M694V/M694V genotype, abdominal pain was the most common symptom, affecting 91%, and all experienced peritonitis. Additional findings included fever (70.9%), arthralgia (62%),myalgia (30.6%), chest pain (22.5%), rash (12.9%), diarrhea (4.8%), and vomiting (3.2%). Tonsillopharyngitis, aphthous stomatitis, and cervical lymphadenopathy were not observed. Significant differences between groups were noted for tonsillopharyngitis, aphthous stomatitis, cervical lymphadenopathy, abdominal pain, peritonitis, diarrhea, vomiting, and arthralgia.

Conclusion
P369S/R408Q variants are associated with a distinct clinical phenotype that may resemble PFAPA, particularly in terms of fever periodicity and oropharyngeal findings. Early identification and close monitoring of these patients are crucial to prevent complications and to individualize therapeutic strategies. In addition, patients carrying the P369S variant may benefit from colchicine treatment.

Table 1. Demographic and Clinical Characteristics of the Study Participants

	Total 119 Mean (SD) Median Q1-Q3)	**P369S/R408Q N=57 (%) Mean (SD) Median (Q1-Q3)**	**M694V/M6P4V N=62 (%) Mean (SD) Median Q1-Q3)**	**P- value**
Female sex	63 (52.9%)	27 (%47.3)	36 (58%)	0.24
Age at symptom onset (months)	54.2 (29.7)	60.6 (39.3)	48.2 (17.1)	**0.02**
Age at diagnosis (months)	91.6 (47.4)	82.3 (41.4)	99.2 (49.8)	0.06
Diagnostic delay (months)	18 (2-72)	12 (4-36)	54 (0-96)	0.1
Age at last visit (months))	146.1 (64.9)	137.2 (69.2)	163.7 (52.7)	**0.002**
Patients attack-free in the last year	45/97 (46.3%)	21/35 (%60)	24 (38%)	**0.04**
Family history of FMF	63 (52.9%)	27 (%47.3)	36 (58%)	0.24

Table 2. Clinical Features of Study Participants During Attacks

	P369S/R408Q N=57 (%) Mean (SD) Median (Q1-Q3)	**M694V/M6P4V N=62 (%) Mean (SD) Median Q1-Q3)**	**P- value**
Abdominal pain	40 (%70.1)	57 (91%)	**0.002**
Fever	39 (%68.4)	44 (70.9%)	0.76
Tonsillopharyngitis	31 (%54.3)	0	**<0.001**
Arthralgia	25 (%43.8)	39 (62%)	0.03
Myalgia	21 (%36.8)	19 (30.6%)	0.47
Aphthous stomatitis	17 (%29.8)	0	**<0.001**
Diarrhea	16 (%28)	3 (4.8%)	**<0.001**
Peritonitis	13 (%22.8)	57 (91%)	**<0.001**
Arthritis	13 (%22.8)	18 (29.0)	0.4
Vomiting	9 (%15.7)	2 (3.2%)	**0.01**
Chest pain	9 (%15.7)	14 (22.5%)	0.3
Lymphadenopathy	7 (%12.2)	0	**0.002**
Skin rash	7 (%12,2)	8 (12,9%)	0.8

Table 3. Laboratory Parameters During Attacks and Between Attacks in Patients with P369S/R408Q

	During Attack **N=57 (%)** **Mean (SD)** **Median (Q1-Q3)**	**Between Attacks** **N=57 (%)** **Mean (SD)** **Median (Q1-Q3)**
CRP (mg/L)	1.1 (0.4-24.5)	0.3 (0.1-0.8)
ESR (mm/h)	21 (8-29)	4 (3-8)
Leukocyte count (mm^3)	8180 (7050-10670)	7130 (6355-9170)
Neutrophil count (mm^3)	4470 (3455-4470)	3605 (2870-5525)
Lymphocyte count (mm^3)	2400 (1915-3085)	2615 (2280-3098)
Platelet count (mm^3)	303000 (242500-383000)	317500 (267000-363500)
AST (U/L)	24.8 (7.5)	24.2 (7.5)
ALT (U/L)	16.6 (10.3)	19.6 (11.9)

POSTER PRESENTATIONS

PP - 02

Focal segmental glomerulosclerosis (FSGS) developing on the background of familial mediterranean fever (FMF): a single-center experience

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Introduction and Aim

Familial Mediterranean fever (FMF) is a genetically transmitted autoinflammatory disease typically characterized by recurrent attacks of fever and pain in the abdomen, chest, or joints. Renal involvement in FMF patients most frequently presents as secondary (AA-type) amyloidosis. However, different podocytopathies, such as Focal Segmental Glomerulosclerosis (FSGS), can rarely be detected without amyloid deposition. Histopathologically, FSGS is a pathological diagnosis characterized by sclerotic lesions observed with focal and segmental involvement of renal glomeruli, primarily involving podocyte injury in its pathogenesis, and frequently progressing to nephrotic-range proteinuria and end-stage renal disease. This report aims to present 10 FMF cases who developed proteinuria and renal dysfunction during follow-up, with a definitive diagnosis of FSGS confirmed by renal biopsy.

Methods

A cohort of 450 patients followed up with a diagnosis of FMF in our clinic was evaluated retrospectively. Renal biopsies performed on patients who developed renal involvement were analyzed; AA-type amyloidosis was detected in 45 patients, and FSGS was detected in 10 patients. The clinical course, laboratory findings, and treatment approaches of the patients diagnosed with FSGS were analyzed in detail.

Results

Four of the 10 patients included in the study were female and six were male, with a mean age of 37.1 years. All patients had nephrotic-range proteinuria, and the amount of proteinuria ranged from 1.0 to 10.8 g/day. Six patients developed end-stage renal disease during follow-up; one of these patients was placed on a peritoneal dialysis program, and two on a hemodialysis program. During the follow-up of the patients, steroids, immunosuppressive

agents (mycophenolate mofetil, cyclosporine), and biological therapies (rituximab, anakinra) were used in addition to colchicine treatment. In one patient, a control renal biopsy performed due to an increase in proteinuria during follow-up revealed the development of AA-type amyloidosis.

Discussion and Conclusion

Although AA amyloidosis is the first etiology that comes to mind for proteinuria developing in FMF patients, non-amyloid glomerular diseases should be kept in mind. It is noteworthy that FSGS, which is rare in the general population, was detected at a rate of 1% in our FMF cohort. The clinical course in FMF patients who develop FSGS can progress rapidly to end-stage renal disease, and the use of immunosuppressives and targeted agents alongside colchicine may be required in these patients.

Keywords

Familial Mediterranean fever, Focal segmental glomerulosclerosis, amyloidosis

Note

Bu bildiride yer alan Tablo 1 (Hasta demografik özellikleri, klinik bulgular ve tedaviler) ve Tablo 2 (Laboratuvar bulguları) detaylı veri tabloları, orijinal PDF dosyasında görsel/tablo formatında yer almaktadır. Tüm sayısal veriler PDF'te mevcuttur.

PP - 03

Familial Mediterranean Fever Associated Pericarditis and Pericardial Tamponade: A Systematic Review of 239 cases

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Background

Cardiac involvement in familial Mediterranean fever (FMF) is infrequently described, and FMF-associated pericarditis/pericardial tamponade may be under-recognized. We performed a systematic review to describe the frequency, clinical phenotypes, genetic background, and management of pericarditis/tamponade attributed to FMF.

Methods

This systematic review was registered in PROSPERO (registration number pending). Searches were conducted in PubMed, Embase, and Google Scholar. We included genetically confirmed FMF cases (diagnostic confirmation after 1997) presenting with pericarditis or pericardial tamponade attributed to FMF; case reports and case series were eligible. Two independent reviewers screened studies in Covidence, with a third reviewer resolving disagreements. Data extraction was performed in Covidence.

Results

Twenty-seven studies published between 1980 and 2026 were included; most were conducted in Turkey (8/27), USA n=3, France n=2, Greece, n=2, Israel n=1. Overall, 7,854 genetically confirmed FMF patients were reported; 446 (5.67%) had cardiac involvement, including 239 (53%) with pericarditis. Median age at onset of pericarditis was 28.55 ± 19 years. Mean age at FMF symptom onset was 16.5 ± 15 years, and median age at FMF diagnosis was 28 ± 16 years. Pericardial tamponade was reported in 11 studies. Acute pericarditis was described in 149 patients. Recurrent pericarditis was reported in 239 patients. Constrictive pericarditis was reported in 8 studies. Genetically, pathogenic MEFV mutations were reported in 157 patients, predominantly homozygous M694V, M689I, M694I, and M680I. During pericarditis flares, mean C-reactive protein was 140 mg/L ± 119. Colchicine was used in 239 patients (100%). Non-steroidal anti-inflammatory drugs were reported in 14 studies. Corticosteroids were reported in 1 study, used concomitantly with colchicine. Anti–IL-1 therapy was reported in 6 studies (26 patients), with complete resolution of pericarditis after a median of 4 days on anakinra.

Conclusions

Pericarditis and pericardial tamponade represent clinically relevant cardiac manifestations (5.67%) in FMF, encompassing acute, recurrent, and constrictive phenotypes. Anti–IL-1 therapy, particularly anakinra, appears to be associated with rapid symptom resolution in reported cases and may be of particular interest in recurrent disease or in patients insufficiently controlled with conventional therapy.

PP - 04

Peritoneal Mesothelioma complicating Familial Mediterranean Fever has a high mortality: a Case Serie of 10 cases including 5 French cases and Literature Review

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Introduction

Familial Mediterranean Fever (FMF) is the most common monogenic autoinflammatory disease, caused by mutations in the MEFV gene encoding pyrin. FMF is characterized by recurrent episodes of fever and serositis, particularly peritoneal and pleural inflammation. In cases of uncontrolled inflammation, FMF may lead to several complications, mainly AA amyloidosis, but also pleural and peritoneal mesothelioma. Chronic inflammation in FMF can result in encapsulating peritonitis, characterized by a newly formed, thickened, and fibrotic peritoneal membrane responsible for acute intestinal obstruction, ascites, or abdominal masses. Mesothelioma occurring in the context of FMF remains poorly studied due to the rarity of this presentation. The aim of our study was to describe patients with FMF who developed peritoneal mesothelial complications.

Methods

We collected French cases of peritoneal mesothelioma occurring in patients followed for FMF at the National Reference Center for Autoinflammatory Diseases and AA Amyloidosis. A literature review of published cases between 1950 and 2026 was also conducted.

Results

Five French patients with FMF complicated by peritoneal mesothelioma were included (male-to-female ratio 4:1). All patients were of Sephardic origin and displayed M694V homozygous MEFV mutations. The median age at FMF symptom onset was 5 years [5–17], and the median age at FMF diagnosis was 17 years [7–35]. The median age at colchicine initiation was 25 years [13–35], and the median duration of colchicine treatment was 42 years [3–43]. Poor adherence or absence of colchicine treatment was reported in two patients. All patients had persistent active disease despite colchicine therapy, with attack frequency ranging from one per month to one per year. One patient developed AA amyloidosis. The mean age at mesothelioma diagnosis was 65 years [64-77]. Four patients had peritoneal mesothelioma and one patient had chronic encapsulating peritonitis. Clinical presentation included recurrent ascites (n=3), intestinal obstruction (n=1), and subcutaneous swelling (n=1). C-reactive protein levels were elevated in all patients, with a median value of 40 mg/L [24–203]. All

patients were receiving colchicine at the time of diagnosis, and four were treated with anakinra. Two patients received chemotherapy, and one underwent surgery. Two patients died during follow-up. The literature review identified 6 additional patients with peritoneal mesothelioma. Five patients carried the M694V mutation in the homozygous state, and three were compound heterozygotes. One patient had AA amyloidosis, and three patients died. When combining the French case series with previously published reports, a total of 10 patients with FMF complicated by peritoneal mesothelioma were identified (4 French and 6 from the literature). At least five patients carrying the M694V mutation in the homozygous state and three compound heterozygous (M694V/V726A and M694V/M680I). AA amyloidosis was present in two patients overall. Clinical presentation most frequently involved ascites or abdominal symptoms, and outcomes were poor, with five deaths reported among the 10 cases (50%).

Discussion and Conclusion

This case series highlights a rare but severe peritoneal complication of long-standing FMF, including peritoneal mesothelioma and encapsulating peritonitis. All patients carried the M694V mutation in the homozygous state, a genotype associated with severe inflammatory phenotypes. Delayed diagnosis, late initiation of colchicine, and persistent inflammatory activity may have contributed to chronic peritoneal damage. Chronic serosal inflammation could promote progressive fibrotic remodeling and mesothelial proliferation, potentially creating a pro-tumorigenic environment independent of classical asbestos exposure. Although rare, mesothelial complications should be suspected in FMF patients presenting with recurrent ascites, intestinal obstruction, or unexplained abdominal masses, particularly in cases of suboptimal disease control.

PP - 05

Does Long-Term Anakinra Treatment Increase the Risk of Infections and Tuberculosis in Patients with Familial Mediterranean Fever?

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Background

Interleukin-1 inhibitors are increasingly used in colchicine-resistant Familial Mediterranean Fever (FMF), yet concerns remain regarding infectious complications and tuberculosis (TB) reactivation. Real-world prospective data on long-term safety are limited.

Methods

This single-center, prospective observational cohort study included adult FMF patients receiving anakinra and followed them for 12 months with structured monthly assessments. Infection-related symptoms, antibiotic use, and hospitalizations were recorded. Tuberculosis outcomes were evaluated based on clinical history and follow-up data. Infection-positive months were defined as those with at least two concurrent infection-related symptoms. Statistical analyses included Poisson regression for antibiotic use and generalized estimating equations for repeated symptom measurements.

Results

A total of 38 patients were enrolled, and 28 completed the 12-month follow-up. Median age was 41 years (IQR: 30.5-47.5), and 64.2% were female. Three patients (10.7%) had history of TB, and seven (25%) had received prophylaxis. No cases of active TB were observed during follow-up, including among patients without prophylaxis. One patient with positive interferon-gamma release assay who had been receiving anakinra without prophylaxis also remained free of TB activation. Infection-related symptoms were common but mild and self-limited. Recurrent symptoms were mostly respiratory. Total of 25 patients (89.2%) received at least one course of antibiotics, with a mean of 1.75 courses per patient-year. No infection-related hospitalizations or intravenous antibiotic were observed. Longer duration of anakinra was not associated with increased antibiotic use or higher frequency of infection-positive months. Small proportion of patients were receiving systemic corticosteroids and had comorbidities, including rheumatoid arthritis and amyloidosis; however, no increase in severe infectious outcomes or TB activation was observed in this subgroup.

Conclusions

In this prospective real-world cohort, long-term anakinra in FMF patients was not associated with TB reactivation or increased risk of severe infections over 12 months. These findings provide reassuring evidence regarding the infectious safety profile of IL-1 inhibition in monitored patients.

Keywords

Familial Mediterranean fever; Anakinra; Interleukin-1 inhibition; Tuberculosis; Infections; Biologic therapy; Safety; Prospective cohort

PP - 06

Iron Restriction Phenotypes and Their Impact on Clinical Outcomes in Familial Mediterranean Fever: A Prospective Study of 161 Adults

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Background

Familial Mediterranean fever (FMF) is the most common monogenic autoinflammatory disease. In a previous retrospective study of 211 adults, we reported iron deficiency in 31% of FMF patients. Iron restriction in autoinflammatory diseases can manifest as absolute iron deficiency (ID), iron deficiency anemia (IDA), and functional iron deficiency (FID). Interpretation of iron status is complicated by inflammation-driven increases in ferritin, which may mask true iron depletion.

Objectives

To evaluate the prevalence and spectrum of iron deficiency in FMF and its association with clinical characteristics, laboratory parameters, disease activity, and outcomes over time, including the impact of iron replacement therapy.

Methods

We conducted a single-center prospective observational study including all consecutive adult FMF patients followed at the French National Centre for Adult Autoinflammatory Diseases between 9 October and 18 December 2024. Inclusion criteria were age >16 years and confirmed FMF, defined by the simplified Livneh diagnostic criteria plus two pathogenic MEFV exon 10 mutations. At baseline, we collected demographics, clinical features, disease activity (AIDAI score, physician global assessment [PGA], asthenia score, FMF severity score [FSS], fatigue visual analogue scale [VAS-F]), number of attacks in the last 3 months, complete blood count, C-reactive protein/serum amyloid A (CRP/SAA) levels, and iron indices (serum iron, transferrin, transferrin saturation [TSAT], ferritin). Patients with iron deficiency received oral iron supplementation, with a switch to intravenous iron in case of intolerance. Treatments (colchicine, anakinra, canakinumab) and responses were recorded. Follow-up assessments were performed at month 3 (M3) and month 6 (M6). Other causes of bleeding (menstruation, gastrointestinal bleeding, hematological bleeding, etc.) were excluded.

Results

We included 161 patients (66 males and 95 females; median age 41.9 years), all carrying two pathogenic MEFV exon 10 mutations. At baseline, 89 patients had normal iron status, 25 ID, 22 IDA, and 25 FID. IDA patients displayed the most severe hematologic-iron phenotype (Hb 11.2±0.9 g/dL; MCV 79.5±5.0 fL; TSAT 8.4±4.7%; ferritin 26.6±52.4 ng/mL) and the highest disease burden (AIDAI 19.4±30.7; VAS-F 43.8±24.6; PGA 0.57±0.98), with CRP/SAA also highest. ID and FID were characterized by low-to-borderline TSAT (17.4% and 18.6%, respectively); FID showed higher inflammatory markers but lower clinical activity than IDA. Almost all patients were taking colchicine (~96%) with sustained response; anakinra and canakinumab were used by 20–32% and 16–27% of patients, respectively. Over time, AIDAI score decreased from 15.1 at baseline to 4.5 at M6, VAS-F from 32.0 to 2.6, and CRP from 10.6 to 5.3 mg/L; TSAT increased at M1 (21.1%→36.0%) and then stabilized, while ferritin rose early and subsequently declined toward baseline. In IDA, iron repletion was followed by marked improvements in iron indices and symptoms: TSAT increased from 8.4% to 25.9% at M3 and 14.7% at M6; ferritin from 26.6 to 154.9 ng/mL at M3 and 99.0 ng/mL at M6; hemoglobin from 11.2 to 13.5 g/dL at M3 and 11.9 g/dL at M6. Disease activity decreased in parallel (AIDAI 19.4→0.8), with a delayed CRP reduction by M6. In ID, we observed a strong short-term repletion signal (TSAT 17.4%→38.8% and ferritin 41.5→175.8 ng/mL at M3) that attenuated by M6, while hemoglobin remained stable (13.4 g/dL). In FID, ferritin increased (40.3→91.5 ng/mL at M3; 57.2 ng/mL at M6) with modest TSAT gains (18.6%→19.6%) and minor hemoglobin changes, consistent with inflammatory iron sequestration; however, clinical activity still improved (AIDAI score 9.5→3.8) as CRP declined by M6. We observed a tendency toward higher disease activity, measured by a composite variable called FMF active, which includes clinical and biological factors (AIDAI score, number of attacks in the past 3 months, CRP, and SAA), in patients with iron deficiency compared to the inactive FMF group, although the association was not statistically significant (RR 1.19, 95% CI: 0.98–1.45, p = 0.08). A significantly greater reduction in attack frequency between baseline and month 3 of follow-up was observed in the group of patients who received iron supplementation compared to those who did not (p = 0.007). The same trend was observed after excluding the five patients whose anti-inflammatory treatment for FMF was intensified during the same period, although the association was not statistically significant (p = 0.055). No difference was found in the reduction in attack frequency at month 6 of follow-up.

Conclusions

Patients with the lowest iron load experienced the highest number of attacks in the last 3 months. These data support the hypothesis that iron deficiency may contribute to inflammatory flares and that its correction may be key to improving the inflammatory state. Systematic screening of iron status appears important in the follow-up of FMF, and larger studies are warranted to confirm these findings and refine iron management strategies in this context.

Note

Bu bildiride yer alan Figure 1 (FMF activity according to iron status at baseline) ve Figure 2 (Reduction in attack frequency: Baseline vs Month 3) görselleri, orijinal PDF dosyasında yer almaktadır.

References

1. Di Cola I, et al. Iron Deficiency in Familial Mediterranean Fever: A Study on 211 Adult Patients From the JIR Cohort. Am J Hematol. 2025 Feb;100(2):310-313.

Disclosure of interest

None declared

PP - 07

Non-Autoinflammatory Diseases Mimicking Familial Mediterranean Fever: A Case Series

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Introduction

Familial Mediterranean Fever (FMF) is the most common monogenic autoinflammatory disease characterized by recurrent episodes of fever and serositis. Due to overlapping clinical features, several non-autoinflammatory conditions may mimic FMF. This case series aims to highlight important clinical clues for differential diagnosis by presenting patients who were initially suspected to have FMF but were eventually diagnosed with alternative conditions.

Case 1

An 8-year-old boy presented with a three-year history of monthly episodes of ankle pain, erythema, and swelling lasting 5-7 days. The attacks were frequently triggered by exercise and were not accompanied by fever, abdominal pain, or chest pain. At the time of administration he had palpable purpura in previous three days. The history of erythema and swelling over the ankle were initially interpreted as erysipelas-like erythema, and the current purpuric lesions were considered compatible with IgA vasculitis. Colchicine therapy was initiated, but only partial response was observed. MEFV gene analysis did not reveal a pathogenic variant. During follow-up, the development of atypical non-blanching, non-palpable skin lesions and hepatosplenomegaly prompted further evaluation, which revealed marked hypertriglyceridemia. The skin findings were reinterpreted as vascular stasis-related lesions and nodular eruptions. The patient was diagnosed with familial chylomicronemia syndrome, referred to a metabolic disorders clinic, and lipid-lowering therapy was initiated. Eruptive xanthomas became more prominent during follow-up.

Case 2

A 17-year-old girl presented with a four year history of recurrent episodes of abdominal pain and fever lasting approximately seven days. Acute phase reactants remained normal during attacks, and no arthritis or rash accompanied the episodes. Due to a family history of FMF and colchicine resistance, the patient had previously been diagnosed with SURF (syndrome of undifferentiated recurrent fever), as no pathogenic variant was detected in MEFV gene analysis. She was started on colchicine therapy. During follow-up at our center, she presented with fever and abdominal pain suggestive of an FMF attack; however, laboratory tests revealed hyponatremia and hypomagnesemia, with persistently normal acute phase reactants. Further evaluation for acute porphyria was performed. Although porphobilinogen levels were normal during the attack-free period, genetic analysis identified a pathogenic variant in the

HMBS gene, confirming the diagnosis of acute intermittent porphyria. After avoidance of triggering factors, no further attacks occurred.

Case 3

A 9-year-old girl presented with recurrent episodes lasting 3-10 days characterized by fever and abdominal pain. Acute phase reactants were markedly elevated during attacks but completely normal between attack episodes. Although MEFV gene analysis was normal, the patient had shown partial response to colchicine treatment. During follow-up, lipemic serum was observed during an attack, prompting further evaluation. Laboratory tests revealed severe hypertriglyceridemia with elevated serum amylase and lipase levels. The findings were consistent with recurrent acute pancreatitis secondary to hypertriglyceridemia. The patient was referred to a metabolic diseases unit and started on dietary therapy.

Case 4

A 14-year-old girl presented with recurrent episodes of fever and abdominal pain occurring approximately once per week since the age of six, each lasting about 48 hours. Lymphadenopathy and arthritis accompanied the attacks. Acute phase reactants were elevated during episodes and normal between attacks. The patient was referred with a preliminary diagnosis of FMF. Further questioning revealed that during the past year, the attacks had been accompanied by swelling of the eyes and lips. There was no family history of FMF. MEFV gene analysis revealed a heterozygous R202Q variant. Three months later, she presented with fever and abdominal pain suggestive of an FMF attack. Physical examination revealed abdominal tenderness and guarding, along with urticarial rash on the hands and swelling of the eyes and lips. An autoinflammatory disease clinical exome panel identified a pathogenic variant in the F12 gene, consistent with hereditary angioedema type 3. The patient responded well to C1 esterase inhibitor therapy during attacks.

Conclusion

In endemic regions, FMF is often considered the primary diagnosis in children presenting with recurrent fever and abdominal pain. However, prolonged attack duration, discordant acute phase reactant responses during attacks, insufficient response to colchicine, negative MEFV gene analysis, marked hypertriglyceridemia, or electrolyte abnormalities should prompt reconsideration of the diagnosis. This case series demonstrates that early recognition of non-autoinflammatory conditions that mimic FMF is crucial for establishing the correct diagnosis and initiating appropriate treatment.

Note

Bu bildiride yer alan klinik fotoğraflar (Figure 1, A-E) orijinal PDF dosyasında yer almaktadır.

PP - 08

Long-Term Clinical Relevance of Heterozygous Pathogenic Mefv Variants in Pediatric FMF: Evidence From Proteinuria and Disease Course

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Introduction

Familial Mediterranean Fever (FMF) is an autoinflammatory disease associated with MEFV mutations. While biallelic exon 10 variants are linked to severe disease and amyloidosis, the clinical significance of heterozygous carriers of pathogenic variants remains controversial. This study aimed to evaluate proteinuria and long-term clinical outcomes in this group.

Methods

Among 3,507 FMF patients followed between June 2016 and September 2025, those who were heterozygous carriers of exon 10 MEFV mutations and had ≥5 years of follow-up were included. This preliminary analysis comprised the first 200 patients. This study was designed as a descriptive cohort study. All of patients met Özen–Yalçınkaya or EUROFEVER/PRINTO criteria. Clinical findings, laboratory data, and disease severity scores (PRAS, ISSF) were retrospectively analyzed. Persistent proteinuria was defined as a spot urine protein/creatinine ratio >0.2 in two consecutive measurements and/or >4 mg/m²/hour in 24-hour urine.

Results

Among 200 patients, 49.5% were female, with a median age at diagnosis of 6.0 years. The most common variants were M694V (68%), V726A (17%), and M680I (12.5%). Frequent clinical features included fever (88%), abdominal pain (87.5%), and myalgia (62.5%). According to PRAS, 30% had mild and 69.5% moderate disease; ISSF scores were low in 39% and moderate in 59.5%. Proteinuria was investigated in 6.5% (13/200). Among patients with unknown etiology, proteinuria resolved in 2 but persisted in 6, none at nephrotic levels. No amyloidosis was detected. The mean follow-up of these patients was 7.8 years. Colchicine was the first-line treatment in all patients. During follow-up, treatment was discontinued in 30% but restarted in 63.3% due to recurrent attacks or subclinical inflammation. At the last visit, 87.5% remained on colchicine. No patient required anti–IL-1 therapy.

Conclusion

Pediatric FMF patients who are heterozygous carriers of pathogenic MEFV variants may exhibit clinically significant disease requiring long-term colchicine therapy. The risk of amyloidosis in patients with persistent proteinuria remains unclear, highlighting the need for further studies.

Key Words

amyloidosis, colchicine, Familial Mediterranean Fever, MEFV gene, proteinuria

PP - 09

Canakinumab Therapy in Colchicine-Resistant Familial Mediterranean Fever: Real-World Outcomes and Predictors of Dose Optimization

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Objectives

Canakinumab, a selective interleukin-1 (IL-1) inhibitor, is an effective treatment option for colchicine-resistant familial Mediterranean fever (FMF); however, real-world data on long-term outcomes and dose optimization strategies remain limited. This study aimed to evaluate treatment response, attack burden, and dose interval modification outcomes, and to identify predictors of successful dose optimization.

Materials and Methods

Sixty patients with colchicine-resistant FMF were retrospectively evaluated. Disease activity was expressed as attacks per patient-year. Patients were grouped according to the success of canakinumab interval extension. Comparative and multivariable analyses were performed.

Results

A total of 60 patients were included. The median age at symptom onset was 24 (12–48) months, median age at diagnosis was 48 (27–72) months and median follow-up duration was 150 (108–180) months. M694V homozygosity was present in 85% (n=51). Prior to canakinumab, 45% (n=27) had received anakinra. Canakinumab was initiated at a median of 92 months after diagnosis and was most commonly administered every two months (78.3%, n=47). Canakinumab significantly reduced the annual attack rate from 7 (4–12) to 1.07 (0.5–2.1) attacks per patient-year. During the first year, 73.3% (n=44) showed marked improvement, and 14.3% (n=8) achieved complete remission. Dose modification was required in 76.7% (n=46), most frequently as interval extension (84.8%, n=39). Interval extension was successful in 40% (n=24) and unsuccessful in 36.7% (n=22). No baseline demographic or treatment-related variables differentiated successful from unsuccessful interval extension (all $p > 0.05$). In multivariable analysis, arthritis present at or prior to diagnosis emerged as an independent predictor of successful dose optimization (OR 0.11, $p = 0.034$). At last follow-up under canakinumab treatment, 54.2% (n=32) were in partial remission and 40.7% (n=24) in complete remission; amyloidosis developed in one patient.

Conclusions

Canakinumab effectively reduces attack burden in colchicine-resistant FMF; however, dose interval optimization is frequently required. Arthritis present at or prior to diagnosis emerged as an independent predictor of successful dose optimization, suggesting its potential role in guiding individualized treatment strategies.

PP - 10

Long-term outcomes of transition from pediatric to adult care in familial mediterranean fever: a comparative analysis of clinical and treatment characteristics

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Introduction

Familial Mediterranean Fever (FMF) is the most common monogenic autoinflammatory disorder worldwide, typically presenting with self-limiting recurrent fever and polyserositis attacks. Transitional care refers to the structured and planned transfer of adolescents and young adults with chronic inflammatory diseases from pediatric care settings to adult-focused healthcare services. Rheumatic diseases, which constitute a significant proportion of children living with chronic diseases, have a reported prevalence of up to 150 per 100,000 children. This study aimed to evaluate the long-term follow-up results of the transition process from pediatric to adult rheumatology care in FMF patients carrying a biallelic pathogenic variant in exon 10 of the MEFV gene and to compare the clinical course, follow-up, and treatment characteristics between the pediatric and adult rheumatology care.

Methods

This retrospective single-center cohort study at the Istanbul University-Cerrahpasa Pediatric Rheumatology Department encompassed 142 patients with childhood-onset familial FMF who transitioned from pediatric to adult rheumatology care via a collaborative transition clinic between January 2014 and December 2023. The final study population was 107 patients who were examined in two groups: pre-transition (pediatric rheumatology care) and post-transition (adult rheumatology care). A successful transition required at least one adult rheumatology appointment within the first year. At least one adult rheumatology appointment in the past year was considered active follow-up.

Results

The total number of patients analysed in this study was 107, of whom 51.4% were female, with a mean age of 29.1 ± 2.7 years. The median pre-transition follow-up period was 13 (9–16) years, and the post-transition follow-up duration was 7 (5–8) years. In accordance with the provisions of the joint transition program, all patients were transferred to adult rheumatology care, and 100 (93.4%) of 107 patients had a successful transition. However, the long-term follow-up rate was lower; only 74 (69.2%) patients had visited at least once in the adult rheumatology care within the last year. Looking at the genotype distribution, the most common mutation was M694V homozygosity, detected in 69 patients (64.5%). Attacks continued in 104 (97.2%) patients before transition and decreased significantly to 83 (77.6%) patients after transition ($p<0.001$). In terms of clinical symptoms, abdominal pain (86.0% vs 59.8%; $p<0.001$), fever (82.2% vs 43.9%; $p<0.001$), arthritis (46.7% vs 33.6%; $p=0.001$) and

arthralgia (67.3% vs 48.6%; p<0.001) were significantly less frequent in post-transition period. However, no significant difference was found between the two periods in terms of erysipelas-like erythema (ELE) (29.0% vs 24.3%; p=0.359) and chest pain (36.4% vs 39.3%; p=0.678). No patient developed amyloidosis. Colchicine dose increased significantly between the pre- and post-transition periods (median 1.5 vs 2 mg/day, p=0.002), and use of compressed colchicine (5.6% vs 42.1%, p<0.001) and anti-IL1 therapy (6.5% vs 23.4%, p<0.001) increased significantly after transition.

Conclusion

In conclusion, this study is the first to include a homogeneous FMF cohort carrying two allelic pathogenic variants in exon 10 of the MEFV gene and to present long-term follow-up data after transition from the pediatric to the adult rheumatology care, comparing clinical characteristics, follow-up and treatment differences in the same patient group. Future prospective, multicentre studies incorporating standardised transition protocols will reveal in greater detail the true impact of structured transition programmes on FMF patients, not only on initial access to adult care but also on long-term disease control, treatment compliance, subclinical inflammation management, and continuity of follow-up.

Note

Bu bildiride yer alan Figure 1 (akış şeması), Table 1 (demografik ve klinik özellikler) ve Table 2 (karşılaştırmalı analiz) detaylı veri tabloları, orijinal PDF dosyasında yer almaktadır.

PP - 11

Phenotypic Differences Between Familial Mediterranean Fever Patients with Pathogenic MEFV Variants and "Familial Mediterranean Fever-like" Patients with no MEFV Variants: Are They Really Same?

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Objectives

Familial Mediterranean fever (FMF) is a prototypic autoinflammatory disease classically associated with pathogenic MEFV variants. However, a substantial proportion of patients fulfilling clinical FMF criteria lack identifiable MEFV variants, raising questions about overlapping phenotypes and underlying disease mechanisms. To compare the phenotypes of those patients classified as FMF with clinical findings depending on the presence or absence of pathogenic/likely pathogenic MEFV variants and explore whether patients with FMF-like features and no MEFV variants represent a distinct clinical entity.

Material and methods

This single-center, observational study included 500 adult patients diagnosed with FMF based on clinical findings and ethnicity, and was conducted between October 2020 and September 2025. The study group was classified as FMF patients with a confirmed MEFV variant (n=412) and FMF-like patients with no MEFV variant (n=88). Demographic features, FMF manifestations, atypical findings, and attack frequency patterns were compared between groups. Categorical variables were analyzed using chi-square tests and continuous variables using non-parametric methods.

Results

Comparison of two groups revealed that age at diagnosis and age at treatment onset were comparable, but female predominance was more pronounced in the MEFV-negative group (72.7% vs 56.1%, p=0.002). The frequency of classical FMF manifestations such as fever, peritonitis, and pleuritis did not significantly differ between the groups, but arthritis was more common in MEFV-positive patients (41.5% vs 27.3%, p=0.008). MEFV-negative patients exhibited a significantly higher prevalence of atypical features, including prolonged attacks, sore throat, tonsillopharyngitis, urticaria, oral aphthae, and folliculitis (all $p<0.05$), and pericarditis (59.3% vs 46.1%, p=0.018). Attack frequency patterns of both typical and atypical manifestations also differed between groups.

Conclusion

Although some patients may fulfill the classification criteria for FMF, the distinct phenotypic profile of the MEFV-negative patients suggests another disorder with overlapping manifestations. These findings support re-evaluating MEFV-negative FMF-like patients with extended genetic and mechanistic studies.

Keywords

Familial Mediterranean fever, MEFV variants, Autoinflammatory diseases, Phenotypic heterogeneity, familial Mediterranean fever-like, pericarditis.

PP - 12

Evaluation of Damage Development in Pediatric Autoinflammatory Diseases: An Interim Analysis of a Single-Center Cohort

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Introduction

Permanent damage is one of the key outcome measures determining long-term prognosis and quality of life in autoinflammatory diseases. However, data on the frequency, timing, and patterns of damage across different pediatric autoinflammatory diseases remain limited. This study aimed to evaluate the frequency of damage, time to first damage, and distribution of first damage domains in pediatric autoinflammatory diseases.

Methods

Pediatric patients with autoinflammatory diseases, including Familial Mediterranean fever (FMF), hyper-IgD syndrome/mevalonate kinase deficiency (HIDS/MKD), and cryopyrin-associated periodic syndrome (CAPS), followed at a single center were retrospectively evaluated. Demographic, clinical, genetic, and treatment-related data were collected. Damage event rates were compared across disease groups. Time to first damage, defined as the first Autoinflammatory Disease Damage Index (ADDI) score >0, was analyzed using Kaplan–Meier survival analysis and compared with the log-rank test. First damage domains were further illustrated using a Sankey diagram.

Results

The cohort included 79 patients with FMF (69.9%), 18 with HIDS/MKD (15.9%), and 16 with CAPS (14.2%). Damage, defined as a damage index score >0, occurred significantly more often in HIDS/MKD (50.0%) and CAPS (43.8%) than in FMF (22.8%) (χ^2=6.816, df=2, p=0.033). Kaplan–Meier analysis using first damage as the event showed a significant difference in damage-free survival among disease groups. Median time to first damage was shortest in CAPS (1.99 years), followed by HIDS/MKD (2.97 years), and longest in FMF (4.05 years). Growth failure was the most common first damage domain overall, while neurological damage was more prominent in CAPS and serosal and musculoskeletal damage were more frequent in FMF and HIDS/MKD.

Conclusion

This interim analysis shows that damage development differs significantly according to disease type in pediatric autoinflammatory diseases. Both the frequency of damage events and the time to first damage were less favorable in CAPS and HIDS/MKD than in FMF. These findings support the importance of early recognition of disease-specific damage patterns and structured long-term follow-up in children with autoinflammatory diseases.

Note

Bu bildiride yer alan Table 1 (demografik ve hastalık ile ilişkili özellikler), Figure 1 (Kaplan-Meier hasarız sağkalım analizi) ve Figure 2 (Sankey diyagramı) detaylı veri ve görseller, orijinal PDF dosyasında yer almaktadır.

PP - 13

Mortality in familial Mediterranean fever: a single-center cohort study of 911 patients and causes-of-death analysis

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Objective

Recent French data have described the characteristics of familial Mediterranean fever (FMF) in patients over 65 years. We aimed to expand on these findings and investigate all causes of death in our cohort.

Materials and methods

We conducted a retrospective observational study at the French adult national reference center for FMF (Tenon Hospital). Patients were identified through the AP-HP Health Data Warehouse under the non-opposition framework. Clinical charts were reviewed and descriptive analyses were performed.

Results

Between 2013 and February 1st, 2026, 911 FMF patients were seen in consultation (mean age 41 years, range 14-96). At data extraction, 25 patients were deceased. Mean age at FMF symptom onset was 5.2 years (2-10) and at FMF diagnosis 19.2 years (3-42), with a mean delay of 24.1 years (0-59) before FMF treatment. Among the 25 deceased patients, 68% were male with a mean age at death of 66.5 years (40-92). All but one patient were born before 1972, prior to the publication of colchicine efficiency in FMF. MEFV genotypes were available for 23 patients: 87% M694V homozygotes, 4.3% M694I homozygotes, and 8.7% compound heterozygotes with pathogenic exon 10 variants. Others met Livneh criteria. AA amyloidosis was present in 44% (11/25) and cirrhosis without other etiology in 16% (4/25). FMF-related causes accounted for 31.8% (7/22) of deaths including AA amyloidosis-related end-stage renal disease, peritoneal mesothelioma and cirrhosis. Other causes included infections (54.5%; one-third COVID-19-related), neoplasia (8.7%), cardiovascular disease (4.3%) and three of unknown causes.

Conclusion

In France, mortality at age 40-44 is around 0.18% (INSEE 2025). The proportion of deaths in our cohort (2.7%) appears higher than expected, though comparisons are limited by follow-up duration and age distribution. These findings highlight FMF's prognostic burden, and the importance of early recognition, chronic inflammation control and timely treatment.

Note

Bu bildiride yer alan Figure 1 (Zaman çizelgesi), Figure 2 (Ölüm yılına göre sıklık) ve Figure 3 (Semptom başlangıcı ile tedavi başlangıcı arasındaki gecikme) görselleri, orijinal PDF dosyasında yer almaktadır.

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PP - 14

Prediction of Homozygous M694V Variation in Pediatric Familial Mediterranean Fever Using Explainable Ensemble Machine Learning

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Objective

This study aimed to develop an explainable ensemble machine learning (ML) model to predict homozygous M694V variation in pediatric patients with Familial Mediterranean Fever (FMF) using routinely available clinical and laboratory parameters.

Material and Methods

This retrospective study included 381 children diagnosed as FMF according to Eurofever/PRINTO criteria. Demographic, clinical, and laboratory data obtained during the first three months after diagnosis were evaluated. Ten ML and ensemble learning models were compared. SHAP-based explainability analysis was applied to the best-performing model. A clinical nomogram was developed for individualized risk prediction. In addition, a regression-based clinical scoring system was developed using conventional logistic regression, and the discriminative performances of the ML model, our regression-based score, and a previously published scoring system were compared.

Results

The AdaBoost ensemble learning model achieved the highest AUC (0.730 +/- 0.090) and the lowest Brier score (0.1731 +/- 0.0284). SHAP analysis showed that elevated Serum Amyloid A (SAA) levels (during attack and attack-free periods), C-Reactive Protein (CRP) levels (particularly during the attack-free period), erysipelas-like erythema (ELE), arthritis/arthralgia, and annual number of attacks were important predictors of M694V homozygosity. In the multivariable logistic regression model, CRP during the attack-free period (OR 1.184; p=0.008), and ELE (OR 2.783; p=0.031) were independently associated with M694V homozygosity. The ML model (AUC: 0.730) demonstrated superior discriminative performance compared with the regression-based score (AUC: 0.685) and a previously published scoring system (AUC: 0.581).

Conclusions

The homozygous M694V variation in pediatric FMF can be predicted using routinely available clinical and laboratory data with an explainable ensemble ML approach. The predictive model and clinical nomogram developed in this study may facilitate earlier risk stratification and more targeted management, particularly in settings where genetic testing is limited.

Key words

Familial Mediterranean Fever, M694V, pediatric, machine learning, ensemble learning, SHAP, nomogram

PP - 15

Multi-omics stratification of FMF attacks distinguishes bi-allelic from heterozygous patients through IL-18/S100 biomarkers

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Background

Familial Mediterranean fever (FMF) is considered an autosomal recessive pyrin–inflammasome autoinflammatory disease, yet simple heterozygous MEFV carriers can develop FMF-like inflammatory attacks.

Objectives

To test whether heterozygous and bi-allelic attacks share the same systemic inflammatory biology using multi-omics, and to look for circulating biomarkers reflecting genotype-dosage effects.

Methods

We studied 38 genetically defined FMF patients during acute attacks (27 bi-allelic, 11 simple heterozygous). Profiling included bulk PBMC RNA-seq, serum cytokines, SomaScan plasma proteomics, and flow-cytometry immune phenotyping.

Results

PBMC RNA-seq showed strong genotype-associated divergence during attacks (23 upregulated and 617 downregulated DEGs in bi-allelic vs heterozygous). The dominant transcriptomic structure was a humoral/adaptive skew driven by immunoglobulin variable and constant-region transcripts, with additional non-Ig contributors. GO enrichment highlighted immunoglobulin complex and humoral programs, with granule/lysosome and neutrophil-

related terms. Interferon-stimulated genes did not define genotype, except for occasional IFN-high outliers in bi-allelic patients. Program inference suggested increased VEGF-associated activity with relatively attenuated NF-κB-associated activity in bi-allelic disease. SomaScan did not identify genotype-differential proteins after multiple-testing correction. Targeted mediators, however, supported a genotype-linked inflammatory axis: total IL-18 was higher in bi-allelic patients ($p=0.006$), together with increased S100A8/A9 ($p=0.042$) and S100A12 ($p=0.02$). CRP and SAA were numerically higher in bi-allelic patients but did not reach significance. Flow cytometry showed no significant differences in major PBMC lineage frequencies, suggesting functional immune-state changes rather than compositional shifts.

Conclusions

Despite similar clinical phenotypes, bi-allelic and simple heterozygous FMF attacks display distinct multi-omic immune programs, combining prominent immunoglobulin-linked PBMC transcriptional divergence with a stronger IL-18/S100 inflammatory axis in bi-allelic patients. IL-18, S100A8/A9, and S100A12 emerge as tractable biomarkers for FMF stratification during attacks.

PP - 16

The Impact of Colchicine Resistance and Comorbidities on Biological Treatment Selection in Familial Mediterranean Fever: A Single-Center Retrospective Study

Üçler Can Ateş, Semih Gülle

Introduction and Objective

Although colchicine remains the cornerstone of Familial Mediterranean Fever (FMF) management, the use of biological agents is inevitable in refractory cases and in patients with concomitant chronic inflammatory diseases. When FMF is accompanied by Spondyloarthritis (SpA), Inflammatory Bowel Disease (IBD), or dermatological manifestations (psoriasis, other dermatoses), the selection of biological therapy and disease monitoring scales may vary considerably. In this study, we aimed to evaluate the spectrum of biological treatments and the impact of comorbidities on treatment decisions in a large FMF cohort using real-world data.

Patients and Methods

Data collected over more than 20 years from 1,780 patients with a diagnosis of FMF followed at Dokuz Eylül University Faculty of Medicine were retrospectively analyzed. The genetic profiles (MEFV mutations), indications for biological therapy (colchicine resistance/intolerance), concomitant rheumatological diseases, and amyloidosis status of patients receiving biological treatment were examined. Drug use characteristics were recorded according to the presence of classic colchicine resistance criteria as well as concomitant rheumatological findings such as spondyloarthritis, arthritis, enthesitis, and inflammatory bowel disease (IBD).

Results

Of the 1,780 patients, 92 (5.1%) were found to be receiving biological therapy. Fifty-nine patients were on IL-1 antagonists (anakinra/canakinumab). Among this group, 49.1% (n=29) were M694V homozygous and 18.6% (n=11) were compound heterozygous. Colchicine resistance was present in 55 patients, intolerance in 7, and amyloidosis in 6. Among the 33 patients (35.8%) receiving non-IL-1 biological therapy, concomitant SpA, IBD, and other rheumatic disease associations were present alongside FMF. In these patients, biological agent selection was guided by disease activity scores of the comorbid condition (ASDAS, DAS28-CRP, etc.) rather than FMF control. Although colchicine use was maintained as an "absolute treatment" in these FMF patients, the predominant factor driving the preference for non-IL-1 biologics was observed to be the clinical picture of concomitant arthritis, enthesitis, or IBD.

Conclusion and Discussion

In our large FMF cohort of 1,780 patients, two distinct patient profiles were identified along the pathway to biological treatment. While 3.1% (n=55) of patients received IL-1 antagonist therapy based on the classic definition of colchicine resistance, 1.8% (n=33) were directed toward biological treatment (anti-TNF, IL-17i, JAKi, etc.) due to the clinical predominance of concomitant peripheral/axial spondyloarthritis, enthesitis, or IBD, even without fully meeting classical FMF resistance criteria. These data indicate that in approximately 5% of the entire cohort, standard colchicine therapy was insufficient or additional biological agents became necessary due to the accompanying inflammatory burden. Our study demonstrates that the

need for biological treatment is concentrated particularly in patients with severe genetic phenotypes such as M694V homozygosity and in those at risk for amyloidosis. However, the primary clinical challenge lies in approximately one-third of patients who have concomitant arthritis, enthesitis, inflammatory bowel disease, and dermatological involvement. Treatment selection in these patients is constrained by the limitations of non-FMF activity scales. The need for novel composite clinical activity indices capable of simultaneously and holistically evaluating both autoinflammatory attacks and concomitant chronic inflammatory processes remains an evident requirement in modern rheumatology practice.

Keywords

Familial Mediterranean Fever, Biological treatment, Spondyloarthritis, Juvenile Idiopathic Arthritis, M694V

PP - 17

Clinical Phenotype Evolution from Childhood to Adolescence in Familial Mediterranean Fever: A Retrospective Cohort Study

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Objective

Familial Mediterranean Fever (FMF) is the most common monogenic autoinflammatory disease across the world. It is characterized by recurrent episodes of fever lasting 12–72 hours accompanied by self-limiting polyserositis attacks. In clinical practice, we observe that the disease phenotype in FMF may vary during adolescence. Based on this observation, the present study aimed to analyze the demographic and clinical characteristics of patients with FMF. In addition, we compared attack frequency, attack duration, and clinical manifestations within the same patient cohort across three periods: the pre-diagnosis period, the post-diagnosis pre-adolescent period under treatment (early, middle, and late childhood), and adolescence under treatment. Furthermore, phenotypic changes between these periods were systematically evaluated.

Method

This study was designed as a retrospective cohort study. Patients who were followed in our clinic with a diagnosis of FMF, had homozygous or compound heterozygous mutations in exon 10 of the MEFV gene, had reached adolescence, and continued to experience attacks were included in the study. Data collection was initiated in January 2026, and a total of 219 patients were included in the final analysis. Demographic and clinical data of the included patients were obtained from outpatient clinic records and electronic medical records. For each clinical manifestation, presence was defined as the occurrence of the finding in at least one attack during the relevant period. The same patients were evaluated across three different periods: (1) pre-diagnosis period; (2) post-diagnosis pre-adolescent period under treatment (early, middle, and late childhood); and (3) post-diagnosis adolescent period under treatment.

Results

A total of 219 patients diagnosed with FMF were included in the study, of whom 109 patients were female (49.8%), with a mean age of 18.4 ± 3.06 years. The median age at symptom onset was 36 months (IQR 24–60), and the median age at diagnosis was 56 months (IQR 36–78), corresponding to a median diagnostic delay of 12 months (IQR 6–24). The most common MEFV mutation was homozygous M694V in exon 10, detected in 101 patients (59.8%). Across all periods, the most common attack manifestations were fever and abdominal pain. The presence of fever, abdominal pain, erysipelas-like erythema (ELE), arthritis, and chest pain differed significantly between periods ($p < 0.05$). Fever and abdominal pain were most frequent during the pre-diagnosis period, whereas arthritis, ELE, and chest pain were most common during adolescence. In addition, attack duration was significantly longer during adolescence compared with the post-colchicine treatment period ($p < 0.001$). During

adolescence, no statistically significant differences in clinical manifestations were observed between female and male patients ($p > 0.05$). Menstrual cycle–related attack triggering was reported in 31 female patients (28.4%). After diagnosis, 203 patients (92.7%) were using colchicine regularly; however, this rate decreased to 160 patients (73.1%) during adolescence, and this difference was statistically significant ($p < 0.001$). A history of colchicine preparation change was reported in 61 patients (61.9%). The median age at initiation of compressed colchicine was 16 years (IQR 12.25–18). Thirty-four patients (15.5%) were receiving anti-IL-1 therapy and one patient (0.5%) was receiving anti-IL-6 therapy. The mean age at initiation of anakinra and canakinumab was 13.4 ± 4.6 and 14.6 ± 4.6 years, respectively. 45 patients (20.6%) had a history of comorbid disease; the most common were juvenile spondyloarthropathies (13, 5.9%) and IgA vasculitis (7, 3.2%). No patients developed amyloidosis.

Discussion

In our study, the partial increase observed in attack frequency and particularly in attack duration during adolescence suggests that this period may represent a more vulnerable phase in terms of disease activity. These findings highlight the importance of closely monitoring treatment adherence during adolescence, reassessing dose optimization, and maintaining closer clinical follow-up. Based on our findings, we conclude that the currently available classification criteria may not be equally applicable across all age groups. Therefore, future criteria sets should consider age-specific clinical priorities, emphasizing fever and abdominal pain in the pre-adolescent period and chest pain and erysipelas-like erythema during adolescence.

Note

Bu bildiride yer alan Table 1 ve Table 2 (demografik, klinik ve tedavi verileri) detaylı tabloları ile kaynakça, orijinal PDF dosyasında yer almaktadır.

PP - 18

Association Between Clinical Manifestations and Laboratory Markers in Patients with Familial Mediterranean Fever

Objective:

To assess the relationship between clinical manifestations and laboratory markers of inflammation in patients with familial Mediterranean fever (FMF).

Materials and methods:

The study included 48 patients with FMF (26 males and 22 females) followed at the V.A. Nasonova Research Institute of Rheumatology. The age ranged from 3 to 43 years (me 13 [6–16] years). Median disease duration was 6.5 [4.5–12] years (range 1–35 years). Serum levels of cytokines IL-6, IL-18, IL-1RA, including erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), serum amyloid A (SAA) were measured. Most patients received colchicine therapy 47 patients (99%), 16 patients (33%) canakinumab were treated and anakinra with 5 (10%).

Results:

Median levels were: ESR 13.5 [7.5–19.8], CRP 2.9 [1.1–13.6], SAA 7.4 [2.8–42], IL-6 0.02 [0.03–0.31], IL-1RA 0.9 [0.11–8.65], and IL-18 540 [293–1499]. Gastrointestinal involvement was associated with higher IL-18 levels ($r=0.36$; $p=0.031$). Skin manifestations showed positive correlations with systemic inflammation markers: ESR ($r=0.37$; $p=0.012$), CRP ($r=0.35$; $p=0.016$), and SAA ($r=0.41$; $p=0.008$). Trends toward associations were observed between skin manifestations and IL-6 ($r=0.30$; $p=0.065$) and IL-1RA ($r=0.29$; $p=0.08$); joint involvement and SAA ($r=0.30$; $p=0.06$) and IL-1RA ($r=0.31$; $p=0.06$); and ocular involvement and IL-1RA ($r=0.28$; $p=0.09$). A negative correlation was found between lymphadenopathy and CRP levels ($r=-0.31$; $p=0.04$). No significant associations were observed between central nervous system, cardiovascular or muscle involvement and the studied laboratory markers ($p>0.05$).

Conclusion:

The observed associations between clinical manifestations, inflammatory markers, and cytokines suggest a role of systemic inflammatory activity and cytokine imbalance in the development of specific organ manifestations in FMF.

PP - 19

MEFV-associated palindromic-like arthritis: a pyrin-related autoinflammatory phenotype or a subtype of palindromic rheumatism?

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Objective:

There are patients with palindromic-like (PL) arthritis who do not meet the criteria for either rheumatoid arthritis or familial Mediterranean fever (FMF). The aim of this study was to compare the clinical features, treatment responses, and outcomes of PL arthritis patients according to the presence of mediterranean fever (MEFV) gene mutations.

Methods:

The study included a total of 70 patients with PL arthritis, 55 of whom were MEFV gene mutation–positive and 15 mutation–negative. The two groups were compared in terms of demographic, clinical, and treatment parameters.

Results:

Age at symptom onset was significantly lower in MEFV-positive patients ($p = 0.030$). Arthritis with erythema was more frequent in the MEFV-positive group ($p = 0.049$). In the MEFV-positive group, ankle (76.4%) and knee (47.3%) were the most prevalent joint involvement pattern. However, hand joint involvement was more common in MEFV-negative patients ($p = 0.005$).

The most prevalent mutation was M694V, with a frequency of 63.6%. Colchicine was used more frequently in the MEFV-positive group ($p < 0.001$) and was associated with higher response rates ($p = 0.001$). In contrast, glucocorticosteroids and synthetic DMARDs were used more commonly in MEFV-negative patients ($p = 0.001$ and $p = 0.012$, respectively), with similar response rates to synthetic DMARDs between the groups. Limited experience with anti-TNF and anti–IL-1 therapy suggested potential benefit in refractory MEFV-positive patients. Progression to chronic arthritis was infrequent, and no confirmed amyloidosis was observed.

Conclusion:

MEFV-positive PL arthritis patients tend to show differences in clinical features and respond better to colchicine. Clinicians should be alert to these phenotypic features, particularly in FMF-prevalent countries, when managing PL clinical presentations.

PP - 20

Peripheral and Retinal Microvascular Alterations in Pediatric Familial Mediterranean Fever According to Colchicine Response

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Aim:

This study evaluated subclinical microvascular alterations in familial Mediterranean fever (FMF) using nailfold capillaroscopy (NFC) and optical coherence tomography angiography (OCTA), comparing findings according to colchicine response.

Material-methods

In this cross-sectional study, children diagnosed with FMF were stratified into two groups according to their response to colchicine: Group 1 (colchicine-resistant) and Group 2 (colchicine-responsive). All participants underwent both NFC and OCTA. Microvascular parameters were then compared between the two groups.

Results

A total of 61 patients with FMF were included and categorized into Group 1 (n=27) and Group 2 (n=34). Group 1 had significantly earlier age at symptom onset and at diagnosis ($p = 0.046$ and $p = 0.037$). Chest pain, arthritis, arthralgia, and exercise-induced leg pain were more frequent in Group 1 ($p = 0.04$, $p < 0.001$, $p < 0.001$, and $p = 0.009$, respectively). Disease severity scores (ISSF and Pras scores) were higher in Group 1 (both $p <0.001$) (Table 1).

Capillaroscopic showed a non-specific pattern in all patients in Group 1, and 35.3% of Group 2 ($p<0.001$). Capillary density was lower in Group 1 ($p < 0.001$). Crossing capillaries, tortuous capillaries, abnormal capillaries, and dilated capillaries were observed more frequently in Group 1 ($p < 0.001$, $p < 0.001$, $p < 0.001$, and $p = 0.008$, respectively).

OCTA demonstrated that right and left central choroidal thickness and right and left central macular thickness were higher in Group 1 ($p = 0.007$, $p = 0.045$, $p = 0.006$, and $p = 0.047$, respectively). Vessel density in the deep capillary plexus was significantly reduced in Group 1 in the whole image, fovea, parafovea, and perifovea regions ($p = 0.021$, $p = 0.034$, $p = 0.023$, and $p < 0.001$, respectively).

Conclusion

Colchicine-resistant pediatric FMF is associated with more pronounced microvascular alterations in both peripheral and retinal circulations, likely reflecting persistent inflammation related microvascular injury.

[Not: Bu bildiride yer alan Tablo 1 (Demografik, klinik, genetik ve kapilaroskopik özellikler) ve Tablo 2 (OCTA parametreleri) detaylı veri tabloları, orijinal PDF dosyasında görsel/tablo formatında yer almaktadır. Tüm sayısal veriler PDF'te mevcuttur.]

PP - 21

Men's health in familial mediterranean fever: a prospective questionnaire-based screening

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Keywords: Familial Mediterranean Fever, Urology, Andrology, Men's Health, Screening, Survey, Prospective, IPSS, IIEF, ICIQ-SF, MSHQ-EjD

Objective:

Familial Mediterranean Fever (FMF) is an autoinflammatory disease characterized by recurrent inflammatory attacks. While several manifestations have been described, the overall burden of lower urinary tract and sexual symptoms remains unclear. This study aimed to prospectively screen male patients with FMF for urogenital symptoms using validated questionnaires.

Methods:

Patients with FMF presenting to a tertiary rheumatology outpatient clinic were prospectively screened during routine visits. Patient-reported outcome measures (PROMs) were used to assess urinary and sexual function alongside anamnesis and urogenital examination. Patients completed the International Prostate Symptom Score (IPSS), International Index of Erectile Function (IIEF), International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF), and Male Sexual Health Questionnaire-Ejaculatory Dysfunction (MSHQ-EjD). They were also questioned regarding prior urological conditions.

Results:

A total of 107 male patients with FMF were included in the analysis. The mean age was 31.9 ± 8.7 years. Fourteen (13%) patients had renal amyloidosis. Based on PROMs results, 10.2% of patients had moderate-to-severe lower urinary tract symptoms, as assessed by the IPSS. Erectile dysfunction based on IIEF criteria was observed in 3.7% of participants, while the mean MSHQ-EjD ejaculatory function score was 17.2 ± 5 (range: 1-20). Urinary incontinence-related symptoms were reported in 12.1% of patients (ICIQ-SF >0). In addition, 28% of participants reported a history of at least one urological condition or symptom during their lifetime, including scrotal pain, groin pain, and pollakiuria.

Conclusions:

Urological and sexual symptoms appear to be relatively common among the FMF cohort. Prospective screening with validated questionnaires identified lower urinary tract symptoms,

urinary incontinence, and erectile dysfunction. These results indicate that urological symptoms may be underrecognized in routine clinical follow-up. Further studies, including control populations and high patient numbers are needed to better clarify the prevalence and clinical implications of these findings.

PP - 22

Silent FMF: Classification of clinical phenotypes related to MEFV gene other than classical familial mediterranean fever

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Abstract N°: 511 | Track: B) Clinical research | Topic: Autoinflammatory disease, VEXAS and other monogenic diseases | Sub-Topic: Adult Rheumatology

Keywords: Observational studies/registries, Epitranscriptomics, epigenetics, and genetics

Background

Familial Mediterranean Fever (FMF) is classically defined by recurrent, self-limiting episodes of fever, serositis, and arthritis. While diagnostic criterias emphasize these cardinal symptoms, their prevalence, clustering, and relationship with genetic variants in real-world patient populations are not fully delineated. Also another cluster of patient exists with more subtle symptoms still related to MEF gene mutations and they are generally gone unnoticed untill they develop amyloidosis. A precise understanding and defining clinical phenotypes associated with the later is crucial for timely diagnosis, particularly in FMF which has detrimental results undiagnosed.

Objectives

This study from a single center aimed to define the prevalence and patterns of these clinical manifestations associated with MEFV genotypes in a well-characterized cohort of 195 patients.

Methods

Study Design and Population

This cross-sectional, observational study was conducted at the Rheumatology Outpatient Clinic of Bakırköy Sadi Konuk Training and Research Hospital between 10 april 2025 and 1 january 2026. A total of 195 adult patients (≥18 years) were consecutively enrolled. Eligible patients manifested recurrent episodes of fever, serositis, arthritis, arthralgia, rash or other systemic symptoms (fatigue, weakness), had a confirmed pathogenic MEFV gene mutation, and exhibited unexplained acute-phase reactant (APR) elevation.

Inclusion and Exclusion Criteria

Inclusion criteria were: (1) age ≥18 years; (2) presence of a pathogenic MEFV mutation; (3) unexplained elevation of APR (C-reactive protein and/or erythrocyte sedimentation rate); and (4) at least one of the following clinical features: recurrent fever, serositis, arthritis, arthralgia, erisipeloid rash or other systemic symptomes (fatigue, weakness).

Exclusion criteria were: (1) age <18 years; (2) normal APR levels; or (3) the presence of any other inflammatory condition (e.g., rheumatoid arthritis, vasculitis, inflammatory bowel disease, psoriasis), infection, or malignancy that could explain the APR elevation and clinical symptoms.

Data Collection and Grouping

A standardized questionnaire was used to collect detailed demographic and clinical data. This included age at diagnosis, symptom profile (abdominal/chest pain, arthritis, arthralgia, erysipeloid-like rash, diarrhea, vomiting, dysmenorrhea, aphthous lesions on colonoscopy, throat pain, lymphadenopathy), symptom onset date, attack duration and frequency, treatment and post-treatment attack frequency. Etnicity (endemic region?), family history of FMF or amyloidosis and the specific MEFV mutation were also recorded.

Based on their dominant clinical presentation at enrollment, patients were classified into six mutually exclusive phenotypic groups: (1) Fever+Serositis+Arthritis, (2) Fever+Serositis, (3) Serositis only, (4) Arthritis only, and (5) Isolated APR elevation.

Results

A total of 195 patients meeting the inclusion criteria were analyzed. The cohort had a mean age of 42.2 (±12.8) years with a female predominance (n=129, 66.2%). All patients exhibited unexplained acute-phase reactant (APR) elevation and had a confirmed MEFV mutation.

Patients were stratified into 5 groups based on their presenting clinical triad:

Group 1 (Fever + Serositis + Arthritis): 41 patients (21%)

Group 2 (Fever + Serositis): 69 patients (35%)

Group 3 (Serositis only): 41 patients (21%)

Group 4 (Arthritis only): 10 patients (2%)

Group 5 (Isolated APR elevation): 12 patients (6%)

The 12 patients (9 female, 3 male) presenting with isolated APR elevation or non-classical symptoms were all on colchicine. Their ages ranged from 12 to 66 years. Genetic analysis of this group revealed heterogeneity: M694V heterozygous (n=5), E148Q heterozygous (n=3, including compound heterozygotes), M680I homozygous (n=1), E148Q homozygous (n=1), and R408Q/P369S heterozygous (n=1). Four patients (33.3%) had a family history of FMF. Notably, one patient in this group had progressed to renal amyloidosis requiring transplantation.

Conclusions

This real-world analysis of a genetically confirmed FMF cohort demonstrates that the classic diagnostic triad of fever, serositis, and arthritis is present in a minority of patients (21.0%). The most common presentation is fever with serositis (35.4%), while isolated serositis also represents a major phenotype (21.0%).

A significant finding is the identification of a non-classical subgroup (6.2%) characterized by isolated biochemical inflammation or atypical symptoms, yet carrying high-penetrance mutations (including M694V and M680I). This group is not devoid of severe outcomes, as evidenced by a case of renal amyloidosis. These findings underscore the broad and heterogeneous clinical spectrum of FMF, extending beyond classic symptomatic flares. They highlight the necessity of genetic testing and careful long-term monitoring even in patients without typical attacks, as biochemical inflammation in the context of a pathogenic MEFV genotype signifies an ongoing disease state with potential for serious complications.

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PP - 23

Dietary patterns and disease activity in familial mediterranean fever: a cross-sectional study

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Objectives

This cross-sectional study aimed to investigate the association between dietary characteristics, including dietary inflammatory load and dietary habits, lifestyle factors such as physical activity, and Familial Mediterranean Fever (FMF) disease activity.

Materials and Methods

We conducted a cross-sectional study of patients with FMF, diagnosed according to the Tel Hashomer and Eurofever/PRINTO criteria. Dietary intake was assessed using two non-consecutive 24-hour dietary records obtained within the preceding 6 months, and analyzed using Ebispro to obtain nutrient intake data. Dietary inflammatory potential was quantified using Dietary Inflammatory Index (DII).[1]

Univariate and multivariate linear regression analyses were conducted to determine the variables associated with the attack frequency.

Results

A total of 94 adult patients with FMF were included (mean age 36.0 ± 11.88 years; 64.5% female). Baseline demographic, clinical, and dietary characteristics of the study population are presented in Table 1.

Longer average exercise duration was associated with lower attack frequency ($p = 0.048$). Average exercise duration demonstrated a significant non-linear (quadratic) association with attack frequency ($p = 0.047$), with patients exercising for 30–60 minutes experiencing fewer attacks, whereas shorter (<30 minutes) and longer (>60 minutes) durations were associated with higher attack frequency.

DII showed no significant association with either FMF attack frequency or VAS. However, patients who reported major changes in dietary habits within the preceding 6 months, experienced higher number of FMF attacks ($p<0.001$) (Table 2). Nearly half of the patients (46%), reported diet-related attack-triggers, most commonly dairy products (n=11).

Conclusions

In patients with FMF, dietary inflammatory load was not associated with attack frequency or severity. However, recent major changes in dietary habits were associated with increased disease activity, suggesting that the consistency of dietary patterns may play relevant role in disease control. Exercise duration showed non-linear association with disease activity, with moderate exercise durations being associated with lower attack frequency, indicating that excessive or insufficient physical activity may be less favorable in FMF management.

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Table 1: Baseline demographic, clinical, and dietary characteristics of the study population

n: 94

Female Gender (%): 60 (64.5)

Age (mean, SD): 36.00 (11.88)

BMI (mean, SD): 26.52 (5.04)

Smoking status (%): 23 (25.3)

Alcohol consumption (%): 12 (12.9)

Exercise frequency per week (%): 0 days 45 (48.4); 1-3 days 31 (33.3); >3 days 17 (18.3)

Exercise duration (%): <30 minutes 26 (44.1); 30-60 minutes 22 (37.3); >60 minutes 11 (18.6)

Age at diagnosis (mean, SD): 21.32 (15.08)

Age at symptom onset (mean, SD): 14.11 (13.35)

Diagnostic delay (mean, SD): 7.37 (9.87)

MEFV mutation status (%): No pathogenic mutation 12 (17.6); One pathogenic mutation 21 (30.9); Two pathogenic mutations 35 (51.5)

Daily colchicine dose (%): ≤2mg 85 (90.4); >2 mg 9 (9.6)

Number of FMF attacks during the past 6 months (mean, SD): 2.00 (2.39)

VAS score (mean, SD): 6.74 (2.32)

Mean duration of FMF attacks during the past 6 months (%): ≤1 day 8 (15.1); 2-4 days 37 (69.8); >4 days 8 (15.1)

PRAS score (mean, SD): 6.36 (3.74)

Frying (%): 64 (68.1)

Boiling / steaming (%): 78 (83.0)

Grilling (%): 70 (74.5)

Baking / oven cooking (%): 84 (89.4)

Sunflower oil (%): 68 (72.3)

Olive oil (%): 65 (69.1)

Butter (%): 56 (59.6)

Margarine (%): 4 (4.3)

Corn oil (%): 5 (5.3)

Change in dietary habits in the past 6 months (%): No change 47 (50.0); Major changes 41 (43.6); Minor changes 6 (6.4)

Dietary Inflammatory Index (DII) score (mean, SD): 1.41 (1.54)

Table 2: Linear Regression analysis of variables associated with attack frequency

Change in the dietary habits, linear: B = 1.09 (95% CI 0.46, 1.72); $p < 0.001$

Response to colchicine treatment, linear: B = -1.08 (95% CI -1.78, -0.38); $p = 0.03$

PRAS Score: B = 0.14 (95% CI 0.02, 0.26); $p = 0.02$

Average exercise duration, Q: B = 0.76 (95% CI 0.01, 1.51); $p = 0.047$

Change in the dietary habits, quadratic: B = 1.21 (95% CI -0.14, 2.55); $p = 0.079$

Response to colchicine treatment, quadratic: B = 0.01 (95% CI -0.86, 0.88); $p = 0.98$

Average exercise duration, L: B = 0.00 (95% CI -0.82, 0.83); $p = 0.99$

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Frequency of Lower Respiratory Tract Infections in Pediatric Patients Diagnosed with Familial Mediterranean Fever Under Canakinumab Therapy

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Objective:

The aim of this study was to evaluate the frequency of lower respiratory tract infections (LRTIs) in pediatric patients diagnosed with familial Mediterranean fever (FMF) and receiving canakinumab therapy, and to determine the safety profile of canakinumab in terms of infections.

Methods:

This single-center, retrospective observational study included 69 pediatric patients who were followed with a diagnosis of FMF and received canakinumab therapy at a tertiary pediatric rheumatology center. The demographic characteristics of the patients, MEFV genetic mutations, duration of canakinumab treatment, and development of infections were retrospectively evaluated from patient records.

Results:

Of the 69 patients included in the study, 56.5% (n=39) were female. The median age at diagnosis was 4.5 years (IQR:3.0–8.8 years), and the median total follow-up duration was 79 months (IQR:55.5–88.5).

The median age at initiation of canakinumab therapy was 13.6 years (IQR:11.2–16.33), and the median duration of canakinumab treatment was 32 months (IQR:22.5–55). During the follow-up period, at least one LRTI developed in 15 patients (21.7%). The time to development of LRTI after initiation of canakinumab therapy was a median of 8 months (IQR:6–24), and hospitalization due to infection was required in one patient.

40% (6/15) of the infections occurred within the first 6 months, 66.7% (10/15) within the first 12 months, and 80% (12/15) within the first 24 months. A total of 16 LRTI events were recorded during 224.4 patient-years of canakinumab exposure, and accordingly, the incidence rate of infection was calculated as 7.1 per 100 patient-years.

Conclusion:

In this study, it was demonstrated that the incidence of LRTIs in pediatric patients diagnosed with FMF and followed under canakinumab therapy was 7.1 per 100 patient-years. It was observed that infections predominantly developed during the early period of treatment, and

close and regular monitoring of patients receiving canakinumab in terms of infections is important.

PP - 25

Quantifying intrafamilial concordance in familial Mediterranean fever: a pairwise sibling analysis using kappa and intraclass correlation

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Keywords: Familial Mediterranean fever; sibling pairs; intrafamilial concordance; phenotypic heterogeneity; MEFV; disease severity.

Objective:

Familial Mediterranean fever (FMF) is the most common monogenic autoinflammatory disease and is characterized by recurrent inflammatory attacks. Despite its monogenic nature, considerable variability in clinical manifestations has been observed, even among individuals carrying identical MEFV mutations. This study aimed to evaluate intrafamilial phenotypic concordance among siblings with FMF and to investigate similarities in clinical features, disease severity, laboratory parameters, and treatment responses.

Materials and methods:

This retrospective cohort study included 274 patients forming 137 affected sibling pairs followed at tertiary pediatric rheumatology centers. Clinical manifestations, laboratory findings, disease severity scores, and treatment characteristics were recorded. Concordance for categorical variables was evaluated using Cohen's kappa (κ) coefficient, and intraclass correlation coefficients (ICC) were calculated for continuous variables.

Results:

The median age at diagnosis was 75 months (range 3–214), with a median diagnostic delay of 12 months (range 0–160). The median annual attack frequency decreased from 12 (range 0–60) before treatment to 1 (range 0–48) after colchicine therapy. The most common clinical manifestations were abdominal pain (83.6%), fever (77.3%), and arthralgia (57.7%). Concordance between siblings was generally low for most clinical features (κ = 0.176–0.320), whereas higher agreement was observed for pleuritis (κ = 0.742). Disease severity scores showed moderate-to-strong concordance, particularly ISSF scores (ICC = 0.761 at baseline). Concordance for attack duration was moderate (ICC = 0.475), while no significant

concordance was observed for attack frequency. Laboratory parameters demonstrated low-to-moderate concordance (ICC = 0.311–0.506). Complete response to colchicine was achieved in 80.8% of patients, and 12.1% required biologic therapy.

Conclusion:

Siblings with FMF demonstrate considerable phenotypic variability despite shared genetic background and environmental exposures, suggesting that factors beyond the MEFV genotype contribute to the clinical expression of the disease.

Table 1. Concordance Analysis Between Siblings for Clinical and Treatment Characteristics (Kappa, 95% CI, SE, p-value)

Sex: κ=0.019; 95%CI −0.148–0.186; SE=0.085; p=0.828

History of appendectomy: κ=0.163; 95%CI −0.178–0.504; SE=0.174; p=0.084

Colchicine dose: κ=0.352; 95%CI 0.187–0.517; SE=0.084; p<0.001

Response to colchicine: κ=0.223; 95%CI 0.045–0.401; SE=0.091; p=0.002

Colchicine resistance: κ=0.308; 95%CI 0.083–0.533; SE=0.115; p<0.001

Colchicine non-adherence: κ=0.303; 95%CI 0.121–0.485; SE=0.093; p=0.001

Subclinical inflammation: κ=0.272; 95%CI −0.024–0.568; SE=0.151; p=0.005

Proteinuria: κ=−0.034; 95%CI −0.056–−0.012; SE=0.011; p=0.693

Fever: κ=0.261; 95%CI 0.075–0.447; SE=0.095; p=0.002

Abdominal pain: κ=0.176; 95%CI −0.022–0.374; SE=0.101; p=0.038

Chest pain: κ=0.333; 95%CI 0.162–0.504; SE=0.087; p<0.001

Arthritis: κ=0.229; 95%CI 0.057–0.401; SE=0.088; p=0.006

Arthralgia: κ=0.320; 95%CI 0.163–0.477; SE=0.080; p<0.001

Exercise-induced leg pain: κ=0.497; 95%CI 0.338–0.656; SE=0.081; p<0.001

Myalgia: κ=0.363; 95%CI 0.189–0.537; SE=0.089; p<0.001

Protracted febrile myalgia: κ=−0.010; 95%CI −0.024–0.004; SE=0.007; p=0.902

Erysipelas-like erythema: κ=0.332; 95%CI 0.136–0.528; SE=0.100; p<0.001

Vomiting: κ=0.309; 95%CI 0.039–0.579; SE=0.138; p<0.001

Diarrhea: κ=0.246; 95%CI 0.024–0.468; SE=0.113; p=0.004

Constipation: κ=0.309; 95%CI 0.005–0.613; SE=0.155; p<0.001

Headache: κ=0.116; 95%CI −0.109–0.341; SE=0.115; p=0.155

Splenomegaly: κ=−0.010; 95%CI −0.024–0.004; SE=0.007; p=0.903

Biologic therapy: κ=0.415; 95%CI 0.188–0.642; SE=0.116; p<0.001

Anakinra use: κ=0.227; 95%CI −0.073–0.527; SE=0.153; p=0.006

Canakinumab use: κ=0.541; 95%CI 0.290–0.792; SE=0.128; p<0.001

Colchicine adverse reactions: κ=0.190; 95%CI −0.071–0.451; SE=0.133; p=0.048

Diarrhea (drug-related): κ=0.158; 95%CI −0.185–0.501; SE=0.175; p=0.114

AST elevation (adverse effect): κ=−0.027; 95%CI −0.054–0.000; SE=0.014; p=0.771

ALT elevation (adverse effect): κ=0.417; 95%CI −0.001–0.835; SE=0.213; p<0.001

Lymphopenia (adverse effect): κ=−0.010; 95%CI −0.024–0.004; SE=0.007; p=0.919

Discontinuation of colchicine: κ=0.490; 95%CI −0.118–1.000; SE=0.310; p<0.001

Current colchicine use: κ=0.168; 95%CI −0.114–0.450; SE=0.144; p=0.084

Table 2. Intraclass correlation coefficients (ICC) for continuous variables among FMF sibling pairs

Demographic and disease course variables:

Current age: ICC=0.691; 95%CI −0.088–0.878; p<0.001

Age at symptom onset: ICC=0.547; 95%CI 0.318–0.693; p<0.001

Age at diagnosis (months): ICC=0.667; 95%CI 0.218–0.829; p<0.001

Diagnostic delay (months): ICC=0.312; 95%CI 0.043–0.508; p=0.013

Follow-up duration (months): ICC=0.705; 95%CI 0.582–0.792; p<0.001

Laboratory parameters during attacks:

White blood cell count: ICC=0.243; 95%CI −0.044–0.493; p=0.048

Neutrophil count: ICC=0.357; 95%CI 0.002–0.632; p=0.025

Lymphocyte count: ICC=0.058; 95%CI −0.255–0.382; p=0.365

Hemoglobin count: ICC=0.250; 95%CI −0.015–0.489; p=0.031

Platelet count: ICC=0.114; 95%CI −0.181–0.389; p=0.223

Erythrocyte sedimentation rate: ICC=0.470; 95%CI 0.174–0.687; p=0.002

C-reactive protein: ICC=0.336; 95%CI 0.110–0.530; p=0.002

Serum amyloid A: ICC=0.013; 95%CI −0.383–0.403; p=0.474

Laboratory parameters outside attacks:

White blood cell count: ICC=0.157; 95%CI −0.042–0.346; p=0.062

Neutrophil count: ICC=0.135; 95%CI −0.084–0.342; p=0.113

Lymphocyte count: ICC=0.294; 95%CI 0.088–0.477; p=0.002

Hemoglobin count: ICC=0.462; 95%CI 0.295–0.598; p<0.001

Platelet count: ICC=0.149; 95%CI −0.022–0.313; p=0.044

Erythrocyte sedimentation rate: ICC=0.506; 95%CI 0.338–0.642; p<0.001

C-reactive protein: ICC=0.420; 95%CI 0.263–0.555; p<0.001

Serum amyloid A: ICC=0.311; 95%CI 0.114–0.486; p=0.001

Disease activity and clinical indices:

Attack frequency (per year): ICC=0.212; 95%CI −0.153–0.461; p=0.110

Attack frequency after colchicine (per year): ICC=0.143; 95%CI −0.273–0.423; p=0.221

Attack duration (hours): ICC=0.475; 95%CI 0.183–0.663; p=0.002

Initial Pras score: ICC=0.532; 95%CI 0.339–0.669; p<0.001

Final Pras score: ICC=0.624; 95%CI 0.471–0.733; p<0.001

Initial ISSF score: ICC=0.761; 95%CI 0.663–0.831; p<0.001

Final ISSF score: ICC=0.684; 95%CI 0.555–0.775; p<0.001

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Instagram as an educational platform for familial mediterranean fever: A 33-Month experience

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Despite therapeutic advances with colchicine and biological agents, FMF patients face persistent challenges accessing reliable educational resources in their native language. Health literacy gaps contribute to suboptimal disease management, treatment non-adherence, and reduced quality of life. Social media platforms have emerged as powerful tools for health education and patient engagement, offering accessibility, interactivity, and community building. We report the design, implementation, and 33-months outcomes of @FMF.reference, the first dedicated Instagram account providing evidence-based FMF education in French.

Over 33 months, the account attracted 404 followers from french speaking countries (France, Belgium, Morocco, Algeria, Tunisia), with 70% of women and 50% aged 25-44 years.

We published 156 posts with simplified explanations about Pathophysiology (n=26), genetics (n=28), Treatment (n=35), Pregnancy and Fertility (n=24), Daily Life (n=27), Nutrition and Physical Activity (n=16).

Posts averaged 412 views [range: 202-875] and Content format significantly influenced performance with a preference for visual posts (images, infographics, videos), underscoring patient preference for dynamic, digestible formats.

Four structured quizzes captured follower feedback in order to study patient reported impact (n=112 total responses). Key findings showed 1-content value: 94% found publications helpful or very helpful; 2-Priority topics: Simple medical explanations (78%), patient testimonies (65%), practical life tips (61%); 3-Impact on isolation: 73% reported feeling less isolated through community connection; 4-Disease self-management: 68% felt more empowered in managing their condition.

Our experience demonstrates that Instagram represents an effective, accessible, and scalable complement to traditional patient education resources. Social media platforms can bridge

healthcare gaps for rare disease populations, fostering informed, empowered, and connected patient communities. We encourage developing similar initiatives in different languages to be able to reach all patients in their own mother tongue. Such a program could maybe become an ISSAID project in the future?

PP - 27

Adult secondary hemophagocytic lymphohistiocytosis/macrophage activation syndrome cases: diagnostic criteria and mortality-associated factors across diverse triggers – a single-centre case series

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Objective:

Adult secondary hemophagocytic lymphohistiocytosis/macrophage activation syndrome (HLH/MAS) is a hyperinflammatory syndrome with high mortality. We aimed to evaluate the clinical characteristics, applicability of diagnostic criteria sets, and mortality-associated features of adult secondary HLH/MAS triggered by diverse etiologies.

Materials and methods:

In this single-center retrospective case series, 11 secondary HLH/MAS attacks occurring in 9 adult patients between 2020 and 2025 who were consulted to the rheumatology clinic were analyzed. Clinical and laboratory findings, triggers, treatments, and outcomes were assessed on attack basis. Fulfilment of HLH-2024, HScore, and EULAR/ACR PRINTO MAS criteria was evaluated.

Results:

Eleven HLH/MAS attacks in 9 patients were analyzed (median age 40 years [IQR 30–45]; 5/9 female). Triggers were predominantly rheumatologic diseases, including adult-onset Still disease, Rhupus, and hyperimmunoglobulin D syndrome, other triggers included lymphoma, leptospirosis, myelodysplastic syndrome with concomitant chronic HBV infection, and prolonged postoperative inflammatory response. Fever was present in 10/11 attacks, organomegaly in 10/11, and hematologic abnormalities in all attacks. Ferritin exceeded 2000 µg/L in all attacks (median: 13.136 µg/L). HScore was over 169 in all attacks (median: 243). HLH-2024 criteria were fulfilled in 7/11 attacks, whereas EULAR/ACR PRINTO MAS criteria were fulfilled in 10/11 attacks. Hemophagocytosis was demonstrated in 5/9 attacks undergoing bone marrow evaluation. Attack-based mortality was 6/11, and patient-based mortality 6/9. Among 4 attacks not fulfilling HLH-2024 criteria, 3 were fatal. In 7/9 patients, the underlying predisposing disease was unknown at presentation.

Conclusions:

In this series, EULAR/ACR PRINTO MAS criteria appeared more sensitive than HLH-2024, and their combined use with HScore strengthened diagnostic assessment. Absence of hemophagocytosis did not exclude the diagnosis. In most cases, HLH/MAS was the first manifestation of the underlying disease, with etiology clarified during follow-up. High mortality supports the importance of early aggressive treatment. Prospective studies are needed to validate diagnostic algorithms.

Keywords: Hemophagocytic lymphohistiocytosis; macrophage activation syndrome

PP - 28

Evaluation of adherence to colchicine therapy in pediatric patients with familial Mediterranean fever

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Objective:

Familial Mediterranean fever (FMF) is among the most common autoinflammatory diseases of childhood, and colchicine remains the mainstay of treatment. Regular adherence to colchicine is crucial for controlling attacks and preventing long-term complications. This study aimed to assess adherence to colchicine therapy in pediatric patients with FMF and to identify factors associated with better treatment adherence.

Materials and methods:

This cross-sectional descriptive study included 178 pediatric patients with FMF and their parents who attended the pediatric rheumatology outpatient clinic between 15 August 2025 and 15 December 2025. Sociodemographic and clinical data were obtained retrospectively from medical records. Adherence to colchicine therapy was evaluated using the Medication Adherence Scale in FMF (MASIF). Associations between MASIF total and subscale scores and clinical and demographic variables were analyzed statistically.

Results:

Of the 178 patients, 97 (54.5%) were female, and the mean age at the last visit was 12.12±3.93 years. According to MASIF scores, 129 patients (72.5%) were classified as adherent to treatment. Female patients had significantly higher scores in the knowledge about medication subscale than male patients (p=0.001), whereas total MASIF scores did not differ significantly by sex (p=0.856). Significant negative correlations were identified between the International Severity Score for FMF (ISSF) at the last visit and treatment adherence (r=-0.173, p=0.021), barriers to medication use (r=-0.150, p=0.045), and total MASIF score (r=-0.171, p=0.022). In univariate logistic regression analysis, self-administration of colchicine (odds ratio [OR] 2.165, p=0.027) and maternal education at high school level or above (OR 2.098, p=0.033) were associated with better adherence.

Conclusions:

Adherence to colchicine therapy was generally high in this cohort of pediatric patients with FMF. Better adherence was associated with more favorable disease status. Strategies aimed at improving disease- and treatment-related knowledge, supporting regular outpatient follow-up, and tailoring management to individual patient needs may further enhance adherence. MASIF may also be a practical tool for identifying patients at increased risk of poor adherence.

PP - 29

Hepatosplenic syndrome in patients with familial mediterranean fever (FMF) in a Russian cohort

Objective:

To assess the frequency of HSS in patients with FMF in a Russian cohort and analyze its association with other clinical and genetic data.

Material and methods:

The study cohort included 116 patients (pts) diagnosed with FMF according to the Turkish pediatric criteria (children) or the Tel Hashomer criteria. The diagnosis was confirmed by the molecular genetic testing (Sanger) of the MEFV gene. The cohort includes 65 males pts (56%) and 51 females (44%); 78 patients (67%) were of Armenian ethnicity. The median age at study inclusion was Me [Q1…Q3] 10 [6...14] years; 12 patients (10.3%) were older than 18 years. Liver and spleen size were assessed clinically (by palpation, percussion) and by ultrasound examination.

Results:

Hepatomegaly was detected in 29 pts (25%), splenomegaly in 33 (28%), hepatosplenomegaly (true HSS) in 19 (16%). Enlargement of the liver and spleen was mild, within 2-4 cm below the costal margin, and the liver consistency was normal on palpation. Among patients with HSS, 11 of 19 (58%) were male; 15 (79%) were of Armenian ethnicity. Homozygosity for the p.M694V mutation was observed in 14 (74%) pts with HSS vs. with 23 (20%) pts in the overall cohort ($p<0.01$). Three patients with HSS had the p.M694V/V726A genotype, 1 - p.M694V/P369S and 1 (5%) was heterozygous for p.M694V. In all pts with liver or spleen enlargement in case of compound heterozygosity, one of the mutations was represented by p.M694V. Arthritis was observed in 12 (63%) pts with HSS vs. with 42 (38%) pts in the overall group, $p<0.05$.

Conclusions:

HSS is identified in 16% of patients with FMF in Russian cohort. Hepatomegaly or splenomegaly may occur in approximately one quarter of patients. HSS is more frequently observed in carriers of the p.M694V mutation of the MEFV gene, especially in the homozygous state. Patients with HSS were also more likely to have arthritis.

PP - 30

Prevalence, Clinical and Genetic Characteristics, and Treatment Responses of Hidradenitis Suppurativa in Patients with Familial Mediterranean Fever

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Background:

Familial Mediterranean fever (FMF) and hidradenitis suppurativa (HS) are autoinflammatory disorders that share common inflammatory pathways, particularly involving IL-1β. However, the clinical significance of their coexistence remains incompletely understood.

Objective:

To determine the prevalence of HS in patients with FMF and to evaluate the associated clinical, genetic features, and treatment responses.

Methods:

In this cross-sectional observational study, 299 adult patients diagnosed with FMF according to the Tel Hashomer criteria were included. HS was screened using a standardized three-question questionnaire and confirmed by dermatological examination. Demographic, clinical, genetic (MEFV mutations), and treatment data were collected. Patients with and without HS were compared, and independent risk factors were assessed using logistic regression analysis.

Results:

HS was identified in 7 of 299 FMF patients (2.3%). Smoking (100% vs. 30.5%, $p<0.001$) and biologic therapy use were significantly higher in the HS group. HS was associated with increased attack frequency ($p=0.011$) and a higher prevalence of chest pain (42.9% vs. 12.3%, $p=0.049$). Colchicine resistance was markedly more frequent in patients with HS (85.7% vs. 11.6%, $p<0.001$) and was identified as the only independent predictor of HS (OR=45.7, $p=0.001$). Although the M694V mutation was significant in univariate analysis, it lost significance in multivariate analysis.

Conclusion:

HS may represent a marker of a more severe inflammatory phenotype in FMF rather than a coincidental comorbidity. Its presence is strongly associated with increased disease activity and colchicine resistance, highlighting the importance of screening for HS in patients with refractory FMF.

Keywords: Familial Mediterranean fever; hidradenitis suppurativa; MEFV mutation; colchicine resistance; autoinflammation; IL-1β

PP - 31

Incidence and Distribution of Newly Diagnosed Autoinflammatory Diseases: A Five-Year Analysis with a Focus on Familial Mediterranean Fever

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Objective

Autoinflammatory diseases (AIDs) are heterogeneous disorders caused by innate immune dysregulation. In endemic regions like Türkiye, Familial Mediterranean Fever (FMF) is the most common monogenic AID. However, the distribution of incident AID cases in tertiary centers remains insufficiently defined. This 5-year study describes the frequency and distribution of newly diagnosed AIDs, focusing on FMF, in a tertiary pediatric rheumatology center.

Materials and Methods:

This retrospective observational study included patients evaluated for suspected AIDs in our tertiary pediatric rheumatology clinic between 2021 and 2026.

Results:

In this 5-year retrospective study, 11,473 patients were evaluated for suspected AIDs, of whom 698 (6.1%) were diagnosed with a new AID. Among the evaluated cohort, FMF was the most frequent diagnosis, confirmed in 383 patients (3.3% of total evaluations and 54.9% of newly diagnosed AIDs). PFAPA was the second most common diagnosis with 204 patients (1.8% of total evaluations), followed by syndrome of undifferentiated recurrent fever (SURF) in 53 patients (0.5% of total evaluations). Among non-FMF monogenic AIDs, the most frequent diagnoses were FCAS1 (n=17), HIDS/MKD (n=13), DADA2 (n=10), FCAS2 (n=7), TRAPS (n=6), Blau syndrome (n=5) and MWS/CAPS (n=1).

The annual number of newly diagnosed FMF cases was 71 (3.6% of total AID-suspected evaluations and 37.0% of new AID diagnoses), 116 (4.9% and 36.0%), 126 (4.0% and 32.9%), 40 (1.7% and 19.4%), and 30 (1.9% and 28.0%) from the first to the fifth year, respectively. In the FMF cohort, the median age at symptom onset was 5.1 years (IQR 3.2–8.5), and the median diagnostic delay was 1.9 years (IQR 0.8–4.2). The most frequent MEFV variant was M694V (42%), followed by M680I, E148Q, and V726A.

Conclusions:

FMF was the leading newly diagnosed AID in our center over the 5-year period and represented a substantial proportion of all new AID diagnoses. These findings highlight the central role of FMF in pediatric rheumatology practice in endemic settings while also demonstrating the broad diagnostic spectrum of non-FMF AIDs.

PP - 32

Folate deficiency in familial Mediterranean fever patients: a cohort of 160 adults

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Objective

In a recent study, no significant association between micronutrient levels and inflammation was observed in pediatric FMF patients [1]. We previously reported a high prevalence of iron deficiency in adult FMF patients. This study aimed to assess the prevalence of folate deficiency and its associations with vitamin B12 deficiency, iron deficiency, and inflammation in adult FMF patients.

Methods

This prospective study included adult FMF patients carrying homozygous MEFV mutations, followed at the French National Reference Center for FMF between June 1, 2025, and February 28, 2026. Folate deficiency was defined as serum folate <11 nmol/L, severe folate deficiency as <4 nmol/L, vitamin B12 deficiency as <156 pmol/L, iron deficiency according to sex-specific laboratory thresholds, inflammation as serum amyloid-A (SAA) >6 mg/L.

Results

A total of 160 patients were included (51.2% female). Folate deficiency was observed in 66.2% of patients (56.6%, men). Vitamin B12 deficiency, iron deficiency, and inflammation were not significantly associated with folate deficiency. Severe folate deficiency was identified in 7 patients (85.7% men). All patients with severe folate deficiency carried homozygous MEFV M694V mutations and were receiving colchicine; 3 patients were treated with IL-1 inhibitors. One patient had AA-amyloidosis and one was obese. Associated iron deficiency was present in 57.1% of cases; median ferritin was low at 8.20 µg/L (4.60-22.40), transferrin 2.23 g/L (1.63-2.49), hemoglobin 13.0 g/dL (11.7-15.0). Disease activity was generally low (median AIDAI 0; VAS 1). Inflammation was observed in 66.7% of patients. Lower transferrin levels were more frequent in patients with severe folate deficiency (p=0.031).

Conclusions

Folate deficiency seems relatively common in adult FMF patients and independent of vitamin B12 deficiency and inflammation. Unlike children, whose diet is generally supervised, adults may have less balanced dietary habits, potentially contributing to folate deficiency. Routine assessment of folate status should be considered in adult patients, particularly in men, with supplementation when appropriate.

[1] Tetik Dinçer, B.; Akboğa, E.; Melikoğlu, F.; Özçelik, G. Association Between Vitamin D, Vitamin B12 and Folate Levels and Persistent Subclinical Inflammation in Pediatric Familial Mediterranean Fever. Children 2026, 13, 371. https://doi.org/10.3390/children13030371

PP - 33

Evaluation of Self-Management, Transition Readiness, and Psychosocial Risks in Adolescents with Familial Mediterranean Fever

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Introduction:

The transition from pediatric to adult healthcare services in adolescents with chronic diseases represents a critical period for the continuity of disease management and clinical outcomes. The aim of this study was to evaluate the level of transition readiness among adolescents diagnosed with Familial Mediterranean Fever (FMF) and to examine age-related differences in disease knowledge, treatment responsibility, and self-management skills.

Methods:

This cross-sectional survey study included adolescents aged 11–18 years with a diagnosis of FMF who were followed at a tertiary pediatric rheumatology center. Participants were stratified into three age groups: 11–13, 14–16, and 17–18 years. The questionnaire was structured according to developmental level and included sections on disease knowledge and management, medication use and responsibility, daily living and self-management skills, a parent-reported questionnaire, and a psychosocial assessment based on the HEEADSSS framework. In addition, a parallel questionnaire was administered to parents. The number of questions increased progressively by age group: for the 11–13 age group, 7, 4, and 8 questions (parent: 5); for the 14–16 age group, 10, 8, and 8 questions (parent: 7); and for the 17–18 age group, 19, 13, and 8 questions (parent: 4), respectively. In older age groups, more comprehensive content was included to assess independent navigation within the healthcare system and increasing self-management capacity. Adolescent responses were analyzed according to age groups, while data obtained from the parent questionnaire were reported separately.

Results:

A total of 53 adolescents with FMF were included in the study (male/female ratio: 1.6:1). The mean age at diagnosis was 5.0 ± 4.0 years, and the mean number of attacks in the past year was 1.0 ± 2.0. Medication adherence was classified as good in 79.2%, partial in 18.9%, and poor in 1.9% of participants. The distribution of responses in disease knowledge and self-management domains according to age groups is presented in Table 1. An increase in affirmative responses related to basic disease knowledge and medication management was observed with increasing age.

In the HEEADSSS assessment, limited risk was observed in the youngest group, while in the middle age group, the most frequent risk was identified in the activities domain (n=5). In the oldest age group, risks were more prominent and distributed across multiple domains, including home (n=3), eating/nutrition (n=3), education (n=2), substance use (n=1), and suicide/depression (n=2).

Discussion:

This study demonstrates that disease knowledge and treatment responsibility increase with age in adolescents with FMF; however, psychosocial risks diversify in late adolescence. Adequate levels of disease knowledge and treatment responsibility are essential for a successful transition process. Nevertheless, even in late adolescence, full competency in basic disease knowledge and self-management was not achieved. These findings suggest that transition readiness does not develop automatically with increasing age and requires structured support.

Table 1. Distribution of Question Numbers and Response Scores by Domain According to Age Groups (Median [IQR])

Disease Knowledge — Number of questions: 11–13y: 7; 14–16y: 10; 17–18y: 19

Disease Knowledge — Yes: 11–13y: 5.0 (3.0–7.0); 14–16y: 6.0 (4.0–8.0); 17–18y: 15.0 (11.0–18.5)

Disease Knowledge — Partial: 11–13y: 1.0 (0.0–3.0); 14–16y: 3.0 (1.0–5.0); 17–18y: 4.0 (0.5–5.5)

Disease Knowledge — No: 11–13y: 0.0 (0.0–2.0); 14–16y: 0.0 (0.0–1.0); 17–18y: 0.0 (0.0–2.0)

Medication Management — Number of questions: 11–13y: 4; 14–16y: 7; 17–18y: 13

Medication Management — Yes: 11–13y: 3.0 (2.0–4.0); 14–16y: 6.0 (3.0–7.0); 17–18y: 10.0 (8.0–12.0)

Medication Management — Partial: 11–13y: 0.0 (0.0–1.0); 14–16y: 1.0 (1.0–3.0); 17–18y: 1.0 (0.0–4.0)

Medication Management — No: 11–13y: 0.0 (0.0–1.0); 14–16y: 1.0 (0.0–2.0); 17–18y: 1.0 (0.0–2.5)

Daily Self-Management — Number of questions: 11–13y: 8; 14–16y: 8; 17–18y: 9

Daily Self-Management — Yes: 11–13y: 4.0 (1.0–8.0); 14–16y: 4.0 (2.0–6.0); 17–18y: 7.0 (5.0–9.0)

Daily Self-Management — Partial: 11–13y: 2.0 (0.0–5.0); 14–16y: 2.0 (1.0–3.5); 17–18y: 2.0 (0.0–3.5)

Daily Self-Management — No: 11–13y: 0.0 (0.0–1.0); 14–16y: 1.0 (0.0–2.5); 17–18y: 0.0 (0.0–2.5)

Parent Assessment — Number of questions: 11–13y: 5; 14–16y: 7; 17–18y: 7

Parent Assessment — Yes: 11–13y: 5.0 (3.0–5.0); 14–16y: 6.0 (2.0–7.0); 17–18y: 6.0 (3.5–7.0)

PP - 34

Medication adherence in pediatric familial Mediterranean fever: The impact of disease severity and anti–interleukin-1 therapy

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Objective:

Long-term colchicine therapy is the cornerstone of treatment in familial Mediterranean fever (FMF), and medication adherence plays a crucial role in preventing disease flares and complications. The aim of this study was to evaluate colchicine adherence and medication-related perceptions in children with FMF using the Medication Adherence Scale in FMF (MASIF) [1], to compare patients receiving anti–interleukin-1 (anti–IL-1) therapy for colchicine-resistant FMF (crFMF) with those not receiving biologics, and to examine clinical, demographic, behavioral, and psychosocial factors associated with treatment adherence among patients receiving anti–IL-1 therapy.

Materials and Methods:

This cross-sectional study included 129 pediatric FMF patients with biallelic pathogenic MEFV variants followed at a tertiary pediatric rheumatology center. Demographic and clinical data were recorded. Disease severity was assessed using the International Severity Score for FMF (ISSF). Medication adherence was evaluated using MASIF, and scores ≥60 were accepted as good adherence [1]. Patients were categorized according to anti–IL-1 therapy use. Comparisons were performed using the chi-square and Mann–Whitney U tests. Median and interquartile ranges (IQR) were reported where appropriate.

Results:

The median age of the cohort was 147 months (IQR 115–192.5), and 77 patients (59.7%) were female. Forty-one patients (31.8%) were receiving anti–IL-1 therapy.

Patients receiving anti–IL-1 therapy had a lower age at diagnosis, higher ISSF scores, and higher annual attack frequency than those not receiving biologics (40 [25–74] vs 72.5 [46.25–105.75] months for age at diagnosis; ISSF 2 [1–2] vs 0.5 [0–1.75]; annual attack frequency 0 [0–1] vs 0 [0–0]; all $p < 0.01$). Overall, 95 patients (73.6%) had good adherence. There was no significant difference in overall adherence between patients receiving anti–IL-1 therapy and those not receiving biologics (78.0% vs 71.6%, $p = 0.438$).

Analysis of questionnaire items showed differences in several medication-related perceptions. Scores for negatively framed items (e.g., forgetting medication, embarrassment when taking medication, and difficulty adapting to regular medication use) were lower among patients not receiving biologic therapy, while the item indicating taking the missed dose later rather than skipping it was higher among anti–IL-1–treated patients.

Conclusion:

Overall medication adherence was similar between patients receiving anti–IL-1 therapy and those not receiving biologics; however, several medication-related behaviors were more favorable among anti–IL-1–treated patients, possibly reflecting greater treatment awareness and increased confidence in therapy in this group.

References:

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PP - 35

Clinical Comparison of Homozygous and Compound Heterozygous MEFV Mutations in Childhood FMF: A Single-Center Experience

Objective:

Familial Mediterranean Fever (FMF) is one of the most common monogenic autoinflammatory diseases, characterized by recurrent episodes of fever and serosal inflammation. The aim of this study was to compare the effects of homozygous and compound heterozygous MEFV mutations on clinical features and treatment response in pediatric FMF patients.

Method:

A total of 134 pediatric FMF patients were included in this single-center retrospective observational cohort study. Patients were divided into two groups based on MEFV mutation status: homozygous and compound heterozygous. Demographic data, clinical findings, and treatment responses were evaluated. Statistical analyses were performed using the Mann–Whitney U test and chi-square/Fisher's exact tests.

Results:

Of the total 134 patients, 99 (73.9%) had a homozygous mutation and 35 (26.1%) had a compound heterozygous mutation. No significant differences were observed between the groups in terms of age at disease onset, age at diagnosis, annual attack frequency, or attack duration. Clinical findings showed a similar distribution in both groups. Although the response to colchicine was higher in the compound heterozygous group, it was not statistically significant. Although the need for anakinra was higher in homozygous patients, it was not significant.

Conclusion:

No significant differences in clinical characteristics were found between homozygous and compound heterozygous MEFV mutations. This indicates that genotype alone is insufficient to predict the disease phenotype.

Keywords: Familial Mediterranean Fever, FMF, MEFV gene, genotype-phenotype relationship, pediatrics

PP - 36

NLRP12 variants in pediatric patients: a single-center experience

Objective

Nucleotide-binding domain leucine-rich repeat-containing receptor family pyrin domain-containing 12 (NLRP12) is linked to autoinflammatory diseases marked by diverse clinical features and varying pathogenicity. This study outlines the clinical and genetic characteristics of patients with NLRP12 variants treated at a tertiary pediatric rheumatology center.

Materials and methods

This retrospective study included patients with identified NLRP12 variants who were followed at a single center. Demographic, clinical, laboratory, and genetic data were collected. Clinical features such as fever, rash, musculoskeletal involvement, and other systemic manifestations were assessed. Laboratory results and treatment responses were analyzed using descriptive methods.

Results

Nine patients with NLRP12 variants were included in this study. The median ages at disease onset and at diagnosis were 2.4 years and 6.9 years, respectively. Males accounted for 77.8% of the cohort. The most common clinical features were recurrent fever in 6/9 (66.7%), rash in 4/9 (44.4%), and musculoskeletal symptoms in 6/9 (66.7%). Gastrointestinal findings were also frequent, observed in 8/9 (88.9%). Oral ulcers were seen in 5/9 (55.6%). Elevated acute-phase reactants (APR) were present in 7/9 (77.8%) of patients. Genetic analysis identified 7 distinct heterozygous variants classified as conflicting, variants of uncertain significance, likely benign, or not found in databases. Therefore, no specific variants were identified, and the patients show diversity. In our cohort, 3/9 patients received colchicine, and 2 of these required additional medications such as anakinra or canakinumab.

Conclusions

Patients with NLRP12 variants display a wide range of clinical features, from mild autoinflammatory conditions to complex phenotypes. Further functional studies are needed to understand the relevant effect of the VUS in NLP12 in an autoinflammatory setting and to determine whether it can act as a monogenic cause. Larger studies are needed better to define genotype–phenotype relationships and guide management strategies.

PP - 37

Temporal changes in diagnosis and management of pediatric familial mediterranean fever: a 25-year single-center cohort study

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Objective

Pediatric rheumatology was formally recognized as a subspecialty in Turkey in 2012. This study aimed to evaluate temporal changes in diagnostic delay, clinical characteristics, genetic features, and treatment approaches in pediatric familial Mediterranean fever (FMF) patients over a 25-year period.

Materials and methods

This single-center retrospective cohort study included 497 pediatric FMF patients followed between 2000 and 2025. Patients were divided by year of diagnosis: Group 1 (before 2012, n=250) and Group 2 (2012 or later, n=247). Demographic, clinical, genetic, and treatment data were compared. Multivariable logistic regression identified independent predictors of colchicine-resistant disease.

Results

Group 2 patients were diagnosed at a younger age (median 6.0 vs 7.4 years, $p<0.001$) with a shorter diagnostic delay (median 1.0 vs 2.0 years, $p<0.001$). Group 2 exhibited a milder clinical phenotype, with lower rates of arthritis (15.0% vs 28.8%, $p<0.001$), arthralgia (47.8% vs 58.8%, $p=0.014$), erysipelas-like erythema (7.7% vs 14.8%, $p=0.012$), and chest pain/pericarditis (18.2% vs 27.6%, $p=0.013$). Heterozygous exon 10 MEFV variants were more frequent in Group 2 (46.2% vs 35.2%), while homozygous exon 10 mutations predominated in Group 1 (34.8% vs 27.1%) ($p=0.023$). Nephritic-range proteinuria declined markedly (13.6% vs 4.5%, $p<0.001$) and biologic therapy use increased (10.8% vs 19.8%, $p=0.005$). In multivariable logistic regression, homozygous MEFV mutations (odds ratio [OR] 6.00, 95% confidence interval [CI] 3.40–10.59), study period (Group 2 vs 1: OR 2.81, 95% CI 1.56–5.07), arthritis (OR 1.98, 95% CI 1.05–3.74), and chest pain/pericarditis (OR 2.16, 95% CI 1.16–4.01) were independent predictors of colchicine resistance.

Conclusions

This 25-year cohort study demonstrates that subspecialty recognition coincided with earlier diagnosis, milder clinical phenotypes, reduced renal complications, and increased biologic use in pediatric FMF. Homozygous exon 10 MEFV mutations remained the dominant predictor of colchicine-resistant disease.

PP - 38

Comparison of Efficacy and Safety of Colchicine and Interleukin-1 Inhibitors in Familial Mediterranean Fever Patients with Pathogenic MEFV Variants and "Familial Mediterranean Fever-like" Patients with no MEFV Variants

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Objective:

Familial Mediterranean fever (FMF) is a prototypic autoinflammatory disease associated with pathogenic MEFV variants. However, a subset of patients fulfilling clinical criteria lack identifiable variants (FMF-like, FMFL). We compared colchicine efficacy, safety, and the need for IL-1 inhibitors in FMF and FMFL patients.

Methods:

This single-center observational study included 500 adults diagnosed with FMF (October 2020–September 2025). Patients were classified as FMF (n=412) or FMFL (n=88). Colchicine response, biologic therapy requirement, laboratory parameters before and after treatment, and adverse events were analyzed.

Results:

FMF patients were diagnosed at a younger age than FMFL (median 14 vs 26 years) and had shorter diagnostic delay. Colchicine reduced attack frequency and inflammatory markers in both groups ($p<0.05$ for all). However, reductions in CRP, ESR, neutrophilia, and ferritin were greater in FMF ($p<0.001$). Attack duration and frequency decreased in both groups, with a more pronounced reduction in attack frequency in FMF ($p<0.001$ vs 0.015). Colchicine intolerance and partial response were similar. Adverse events differed: hepatotoxicity was more common in FMF (26.0% vs 18.2%), while nausea was more frequent in FMFL (31.8% vs 23.6%). Anakinra and canakinumab were effective in both groups, although inadequate response to anakinra was higher in FMFL (33.3% vs 17.5%). Canakinumab showed sustained efficacy regardless of genotype.

Conclusions:

FMFL patients pose diagnostic challenges with later diagnosis and atypical features. While colchicine is effective in both groups, inflammation control is superior in FMF, supporting its role in pyrin- and IL-1–mediated pathways. Differences in adverse events may reflect metabolic and hepatic factors. Broader genetic testing, including NGS, may refine diagnosis and guide personalized treatment, particularly in colchicine-refractory or atypical cases.

Keywords: Familial Mediterranean fever, MEFV variants, Autoinflammatory diseases, familial Mediterranean fever-like, Colchicine, Anakinra, Canakinumab.

PP - 39

Non-NLRP3 NLR Variants Define an Overlapping Autoinflammatory Spectrum with Prominent Mucocutaneous Involvement

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Objectives:

Gain-of-function mutations in NLRP3 represent the prototypical cause of inflammasome-driven systemic autoinflammatory diseases (SAIDs). Other members of the nucleotide-binding domain and leucine-rich repeat–containing (NLR) family, including NLRP1, NLRP7, NLRP12, and NLRC4, may also contribute to systemic inflammatory phenotypes. We aimed to characterize patients carrying variants in these NLR genes.

Material and methods:

Patients referred for SAIDs and harboring NLR-variants were retrospectively analyzed. All patients underwent targeted next-generation sequencing and variants were interpreted according to ACMG criteria. Demographics, clinical manifestations, laboratory, and treatment data were recorded.

Results:

Thirty-three patients (70% female; age 19–62 years) were included. Recurrent fever was the predominant manifestation and frequently accompanied by musculoskeletal symptoms and prominent mucocutaneous findings, including erythematous and urticarial rashes, erythema nodosum-like lesions, oral aphthae, and conjunctivitis. Distinct phenotypic patterns were observed across variant groups. NLRP1 variants were often associated with FMF-like features, including recurrent fever and serositis, occasionally with autoimmune features. NLRP7 variants were linked to recurrent febrile episodes with mucocutaneous involvement. NLRP12 variants typically presented with periodic fever syndromes and maculopapular or erythema nodosum-like lesions. NLRC4 variants were characterized by episodic systemic inflammation with gastrointestinal involvement and atypical cutaneous manifestations including erysipelas-like erythema and angioedema. Coexisting MEFV variants were identified in a subset. Approximately one-third responded to colchicine, whereas another third required IL-1 blockade.

Conclusion:

Non-NLRP3 NLR-variants are associated with a broad and overlapping spectrum of systemic autoinflammatory phenotypes, frequently marked by mucocutaneous involvement. These

findings highlight the importance of expanded genetic evaluation beyond MEFV in patients with atypical inflammatory presentations and support the use of colchicine and IL-1 inhibition as effective therapeutic options.

Keywords: Autoinflammatory diseases, NLRP mutation, IL-1, mixed autoinflammatory disease, colchicine

PP - 40

Phenotypic Differences Between Familial Mediterranean Fever Patients with Pathogenic MEFV Variants and “Familial Mediterranean Fever-like” Patients with no MEFV Variants: Are They Really Same?

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Objectives:

Familial Mediterranean fever (FMF) is a prototypic autoinflammatory disease classically associated with pathogenic MEFV variants. However, a substantial proportion of patients fulfilling clinical FMF criteria lack identifiable MEFV variants, raising questions about overlapping phenotypes and underlying disease mechanisms. To compare the phenotypes of those patients classified as FMF with clinical findings depending on the presence or absence of pathogenic/likely pathogenic MEFV variants and explore whether patients with FMF-like features and no MEFV variants represent a distinct clinical entity.

Material and methods:

This single-center, observational study included 500 adult patients diagnosed with FMF based on clinical findings and ethnicity, and was conducted between October 2020 and September 2025. The study group was classified as FMF patients with a confirmed MEFV variant (n=412) and FMF-like patients with no MEFV variant (n=88). Demographic features, FMF manifestations, atypical findings, and attack frequency patterns were compared between groups. Categorical variables were analyzed using chi-square tests and continuous variables using non-parametric methods.

Results:

Comparison of two groups revealed that age at diagnosis and age at treatment onset were comparable, but female predominance was more pronounced in the MEFV-negative group (72.7% vs 56.1%, p=0.002). The frequency of classical FMF manifestations such as fever, peritonitis, and pleuritis did not significantly differ between the groups, but arthritis was more common in MEFV-positive patients (41.5% vs 27.3%, p=0.008). MEFV-negative patients exhibited a significantly higher prevalence of atypical features, including prolonged attacks, sore throat, tonsillopharyngitis, urticaria, oral aphthae, and folliculitis (all $p<0.05$), and pericarditis (59.3% vs 46.1%, p=0.018). Attack frequency patterns of both typical and atypical manifestations also differed between groups.

Conclusion:

Although some patients may fulfill the classification criteria for FMF, the distinct phenotypic profile of the MEFV-negative patients suggests another disorder with overlapping manifestations. These findings support re-evaluating MEFV-negative FMF-like patients with extended genetic and mechanistic studies.

Keywords: Familial Mediterranean fever, MEFV variants, Autoinflammatory diseases, Phenotypic heterogeneity, familial Mediterranean fever-like, pericarditis.

PP - 41

THE EFFECT OF MEDITERRANEAN DIET ADHERENCE ON DIETARY INTAKE AND QUALITY OF LIFE IN ADULTS WITH FAMILIAL MEDITERRANEAN FEVER

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Rationale:

Familial Mediterranean Fever (FMF) is a hereditary autoinflammatory disease characterized by recurrent inflammatory attacks and persistent subclinical inflammation even during attack-free periods. The Mediterranean diet (MD) has anti-inflammatory properties and is associated with improved outcomes in chronic inflammatory diseases. However, the effect of MD adherence on dietary intake is unclear in FMF. Thus, this cross-sectional study aimed to evaluate the effect of MD adherence on dietary intake and quality of life in adults with FMF.

Methods:

Sixty-two adults (≥18 years) who were followed in the rheumatology clinic of a university hospital were included. MD adherence, dietary intake, and quality of life were assessed using the Mediterranean Diet Adherence Screener (MEDAS), three-day food record, and FMF Quality of Life Scale (FMF-QoL), respectively. Participants were categorized into low (MEDAS<7), moderate (MEDAS: 7–<9), and high (MEDAS≥9) MD adherence groups.

Results:

MD adherence varied among participants, with 37% low adherence, 39% moderate adherence, and 24% high adherence. No differences were detected between groups, except for carotene intake (p=0.028), which was significantly lower in the low adherence group compared to the moderate adherence group (p=0.009).

Conclusion:

According to our results, MD adherence does not have an effect on dietary intake and quality of life in FMF. However, the low intake of carotene in the low MD adherence group might be important when the antioxidant properties of carotenoids are considered.

Disclosure of Interest: None Declared

Table: Comparison of Dietary Intake and Quality of Life by Mediterranean Diet Adherence Levels in Adults with FMF

Age (years): Low 26.0 (23.0–40.0); Moderate 41.0 (26.0–49.2); High 40.0 (31.0–46.0); p=0.046

Female n (%): Low 17 (73.9); Moderate 16 (66.7); High 13 (86.7); p=0.381

Male n (%): Low 6 (26.1); Moderate 8 (33.3); High 2 (13.3)

BMI (kg/m2): Low 25.4 (21.0–29.3); Moderate 27.5 (25.4–30.6); High 25.1 (22.3–28.9); p=0.427

Energy (kcal/day): Low 1674.2 (1053.9–2046.2); Moderate 1644.5 (1129.8–2424.8); High 1224.5 (1080.0–1688.6); p=0.090

Water (g/day): Low 536.3 (355.8–609.3); Moderate 604.9 (443.3–715.2); High 582.7 (432.3–636.7); p=0.258

CHO (g/day): Low 166.3 (111.1–224.8); Moderate 162.6 (111.9–244.7); High 131.2 (95.6–175.8); p=0.181

CHO (%): Low 44.0 (38.0–49.0); Moderate 41.5 (35.7–46.5); High 39.0 (35.0–45.0); p=0.401

Fiber (g/day): Low 13.4 (9.3–19.4); Moderate 17.9 (12.8–23.3); High 14.4 (11.5–19.4); p=0.160

Starch (g/day): Low 109.7 (72.3–137.5); Moderate 118.7 (68.1–155.7); High 78.1 (57.7–100.6); p=0.093

Protein (g/day): Low 58.9 (40.1–74.8); Moderate 69.1 (52.3–86.9); High 49.8 (36.8–61.8); p=0.062

Protein (%): Low 15.0 (13.0–18.0); Moderate 16.0 (14.0–19.0); High 15.0 (14.0–17.0); p=0.375

Fat (g/day): Low 74.4 (52.0–93.8); Moderate 73.1 (52.0–112.4); High 63.6 (42.0–71.9); p=0.172

Fat (%): Low 40.0 (34.0–46.0); Moderate 43.0 (38.2–46.0); High 43.0 (40.0–47.0); p=0.615

SFA (g): Low 21.7 (12.3–33.5); Moderate 22.0 (16.7–29.8); High 17.8 (13.9–23.5); p=0.225

MUFA (g): Low 28.7 (16.8–37.2); Moderate 30.0 (20.4–39.4); High 27.4 (20.9–33.3); p=0.533

PUFA (g): Low 14.3 (9.4–23.3); Moderate 15.4 (9.2–22.6); High 7.6 (6.1–15.2); p=0.090

Omega-3 (g): Low 1.0 (0.6–1.2); Moderate 0.9 (0.7–1.6); High 0.9 (0.7–1.6); p=0.214

Omega-6 (g): Low 13.3 (8.3–19.4); Moderate 14.1 (7.6–20.7); High 6.5 (5.3–14.2); p=0.096

Cholesterol (mg): Low 239.8 (158.2–438.5); Moderate 339.6 (190.4–415.4); High 252.7 (150.3–385.6); p=0.608

Vitamin A (µg): Low 541.6 (376.8–1160.0); Moderate 936.0 (645.4–1236.3); High 692.4 (484.3–911.0); p=0.067

Carotene (µg): Low 1.49 (0.72–3.39); Moderate 3.47 (1.53–5.60); High 2.51 (0.97–3.84); p=0.028

Vitamin D (µg): Low 1.2 (0.7–1.7); Moderate 1.8 (0.9–3.1); High 1.4 (1.0–2.5); p=0.157

Vitamin E (mg): Low 16.0 (10.6–20.7); Moderate 18.8 (10.8–23.0); High 10.5 (8.7–20.8); p=0.358

Thiamine (mg): Low 0.7 (0.5–0.9); Moderate 0.8 (0.6–1.0); High 0.6 (0.5–0.8); p=0.215

Riboflavin (mg): Low 1.1 (0.7–1.5); Moderate 1.2 (0.9–1.4); High 0.9 (0.7–1.3); p=0.322

Niacin (mg): Low 11.4 (9.4–15.9); Moderate 10.6 (8.5–17.5); High 9.0 (6.8–11.8); p=0.149

Pyridoxine (mg): Low 1.0 (0.8–1.2); Moderate 1.1 (0.9–1.4); High 1.0 (0.8–1.1); p=0.151

Folate (µg): Low 183.0 (126.5–262.0); Moderate 270.0 (188.7–311.4); High 214.6 (159.3–265.5); p=0.105

Vitamin B12 (µg): Low 3.9 (1.8–6.2); Moderate 3.0 (2.2–3.0); High 2.5 (1.8–4.0); p=0.329

Vitamin C (mg): Low 50.4 (31.9–105.4); Moderate 84.6 (52.5–119.0); High 81.5 (67.9–107.2); p=0.099

Iron (mg): Low 8.6 (7.2–10.7); Moderate 9.8 (7.0–12.1); High 8.3 (6.3–9.9); p=0.266

Magnesium (mg): Low 202.1 (129.6–286.8); Moderate 255.4 (161.2–312.6); High 211.2 (143.4–237.2); p=0.144

Zinc (mg): Low 7.4 (5.4–9.9); Moderate 8.0 (6.0–10.6); High 7.2 (5.6–7.9); p=0.359

Selenium (µg): Low 10.8 (4.0–19.7); Moderate 13.1 (10.5–19.2); High 14.8 (5.4–17.5); p=0.642

Sodium (mg): Low 1271.7 (792.4–2102.5); Moderate 1833.8 (1147.3–2288.8); High 1197.6 (891.8–1447.0); p=0.055

Potassium (mg): Low 1828.3 (1507.9–2323.7); Moderate 2191.1 (1413.6–2675.7); High 2066.6 (1582.6–2341.2); p=0.290

Calcium (mg): Low 470.9 (318.8–580.5); Moderate 665.1 (411.5–827.0); High 441.3 (362.0–554.6); p=0.038

Phosphorus (mg): Low 840.2 (613.5–1023.0); Moderate 1102.7 (758.7–1220.5); High 826.7 (641.2–1002.0); p=0.095

FRAP (mmol): Low 2.1 (1.5–3.0); Moderate 3.0 (1.9–3.5); High 3.0 (2.0–4.1); p=0.190

ORAC (µmol TE/day): Low 2070.7 (599.5–2782.2); Moderate 1845.6 (795.0–2925.1); High 2577.4 (1238.5–4078.9); p=0.281

FMF-QoL: Low 27.0 (12.0–39.0); Moderate 19.0 (13.0–37.0); High 16.0 (11.0–27.0); p=0.365

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Experience of Anakinra Treatment Practices in Colchicine-Resistant Familial Mediterranean Fever: An International Survey of Pediatric Rheumatologists on behalf of the PReS AID-WP and the Turkish Pediatric Rheumatology Association

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Objective:

Colchicine-resistant familial Mediterranean Fever (cr-FMF) represents a therapeutic challenge, and anakinra, an interleukin-1 (IL-1) inhibitor, is widely used in clinical practice. Our aim was to evaluate real-world practices of pediatric rheumatologists regarding the use of anakinra in patients with cr-FMF, with focusing on treatment initiation, tapering strategies, and discontinuation approaches.

Methods:

This survey-based study included pediatric rheumatologists with at least one year of clinical experience in managing cr-FMF. The survey assessed physician characteristics, treatment initiation strategies, and tapering and discontinuation strategies. Data were collected using Google Forms, and responses were obtained between September and November 2025.

Results:

A total of 81 pediatric rheumatologists participated, the majority practicing in Türkiye (92.6%). Anakinra was predominantly administered as a once-daily injection (95.1%), with an initial dose of 1–2 mg/kg/day in the majority of cases (82.7%). Assessment of treatment response was most commonly performed within the first month, particularly at 4 weeks (48.1%) and 2 weeks (39.5%). During tapering, interval extension was the preferred strategy, most commonly to weekly dosing (44.4%), followed by every 3 days (23.5%).

Most respondents (79%) reported considering treatment discontinuation after sustained remission, with a median required remission duration of 6 months (IQR 3–12). In the event of a flare during tapering, physicians most frequently preferred shortening the dosing interval (43.2%) or increasing the dose (37.0%), while 19.8% opted to switch biologic therapy. Following relapse after complete discontinuation, the majority (81.5%) restarted anakinra at the previously effective dose. Management strategies after discontinuation were not associated with years of clinical experience ($p = 0.722$).

Conclusion:

While anakinra initiation and relapse management appear relatively standardized, substantial heterogeneity exists in tapering and discontinuation strategies. These findings highlight the need for evidence-based guidance to support treatment optimization and discontinuation decisions in pediatric patients with cr-FMF.

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Psychological disturbance in children with familial Mediterranean fever (FMF)

Objective:

To evaluate the psychological status and its disorders in children with FMF in the Russian FMF cohort.

Material and methods:

The study included 16 inpatient patients with FMF, whose diagnosis corresponded to the Turkish pediatric criteria Yalcinkaya-Ozen. There were 10 male patients (62.5%). The age of the patients was Me [Q1...Q3] 9.5 [7.5...12.5] years. 12 (75%) had colchicine-resistant form and required biological therapy, 10 out of 12 were prescribed IL1 inhibitors. 1 patient had amyloidosis with nephrotic syndrome. The psychological study was conducted before the appointment of biological therapy. The following psychological techniques were used: pictographs, 10 words (Luria), Schulte tables, pictographs, exclusion of an object, drawing "house-tree-man".

Results:

Cognitive impairments were observed in 14 (87.5%) out of 16, in 7 (50%) they were moderate, in 2 (14.3%) they were pronounced. Attention disorders were noted in 11 (85%) of the 13 surveyed, which included low concentration (8 (72.7%)), rapid exhaustion (5 (45.5%)) and decreased resistance (7 (64%)). A decrease in logical thinking was noted in 10 (62.5%). Hypomnesia was noted in 10 (62.5%) and was most often represented by a violation of mechanical memory – 6 (60.0%). Graphic signs of organic disorders were present in 12 (75%). In the emotional sphere, a high level of anxiety comes to the fore – 10 (62.5%), depression in 2 (12.5%).

Conclusions:

The majority of patients with severe FMF variants requiring hospitalization and the appointment of biological therapy have dysfunctions of various aspects of the psyche, most often mild cognitive impairment and attention disorders, which in most patients is accompanied by graphic signs of an anxiety personality disorder.

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Elevated Serum Zonulin and Impaired Intestinal Barrier Integrity in Familial Mediterranean Fever (FMF): In Vitro Evidence

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Background:

FMF is a monogenic autoinflammatory disease characterized by pyrin inflammasome overactivation and systemic inflammation. Frequent gastrointestinal symptoms suggest that intestinal barrier impairment, "leaky gut", may amplify systemic attacks; however, its contribution to FMF pathophysiology remains unclear.

Aim:

To evaluate systemic markers of gut permeability and inflammation in FMF patients and to investigate the effects of FMF serum on epithelial barrier function using an in vitro Caco-2 monolayer model.

Methods:

The study included 40 FMF patients with confirmed MEFV mutations (46.4±2.8 years, 50.0% female) and 74 age- and sex-matched controls (age: 42.1±1.9 years, 51.3% female). Serum levels of Zonulin, a permeability marker, and cytokines (IL-1β, IL-6, IL-18, IL-10) were measured via ELISA. In vitro, CaCo-2 monolayers were treated with 10% serum from FMF patients, non-FMF controls, or with 10% FBS, applied either to fully differentiated cells to assess short-term barrier effects (48 h) or throughout the 21-day differentiation period to evaluate impacts on epithelial maturation. Barrier integrity was assessed by measuring transepithelial electrical resistance (TEER) with an EVOM2 volt/ohmmeter, and changes in resistance (Rt/$\Omega \cdot cm^2$) were recorded.

Results:

FMF patients exhibited higher serum Zonulin (10.8±0.6 vs 3.9±1.9 ng/ml, $p<0.0001$) and IL-1β (19.3±1.3 vs 9.9±0.7 pg/ml, $p<0.0001$) compared to controls. No differences were observed for IL-6, IL-18 and IL-10. In vitro, apical exposure to FMF serum reduced TEER after 48h compared to control serum (94% vs 105.3%, $p=0.048$). Furthermore, chronic exposure to FMF serum impaired barrier maturation, showing a reduced overall area-under-curve (Rt·21 days) compared to controls (14043 vs 17702, $p<0.05$).

Conclusions:

FMF is associated with increased intestinal permeability in patients. In vitro data demonstrate that FMF serum directly disrupts the integrity and the maturation of the intestinal barrier. These findings suggest that circulating inflammatory mediators contribute to gut dysfunction, highlighting the gut–systemic axis as a potential therapeutic target in FMF.

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Deficiency of Adenosine Deaminase 2 Presenting with Sequential Sudden Sensorineural Hearing Loss and Behçet-like Features in a Young Adult

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Background

Deficiency of adenosine deaminase 2 (DADA2) is a rare monogenic autoinflammatory disease caused by biallelic pathogenic variants in ADA2. The phenotype is highly heterogeneous and may include systemic inflammation, vasculopathy/vasculitis, hematologic abnormalities, immunologic manifestations, hepatosplenomegaly, and mucocutaneous findings. DADA2 may also mimic Behçet disease or polyarteritis nodosa, which can delay diagnosis. Sensorineural hearing loss is an uncommon but recognized manifestation and may occur with sudden onset.

Case Presentation

A 24-year-old man was evaluated for chronic systemic inflammation accompanied by progressive auditory disability and Behçet-like mucosal manifestations. Review of his medical history revealed persistently elevated acute phase reactants since 2016, with C-reactive protein levels repeatedly ranging between approximately 40 and 100 mg/L. During follow-up, he was also noted to have lymphopenia and hepatosplenomegaly, suggesting an ongoing multisystem inflammatory process rather than an isolated organ-specific disorder.

In 2020, he developed sudden hearing loss in the left ear and was treated in the otorhinolaryngology department with hyperbaric oxygen therapy. At that time, the event was considered a primary otologic problem. However, in 2023, he experienced complete hearing loss in the right ear, indicating sequential bilateral involvement. For this second episode, he received glucocorticoids and hyperbaric oxygen therapy. The occurrence of severe and sequential hearing loss in a young adult with longstanding inflammation raised suspicion for an underlying systemic autoinflammatory or vasculitic disorder.

Further clinical evaluation disclosed a history of genital ulceration, contributing to a Behçet-like phenotype. Nevertheless, the overall presentation was atypical for classical Behçet disease because the patient also had persistent inflammatory marker elevation, lymphopenia, and hepatosplenomegaly. Pathergy testing was negative. Abdominal computed tomography angiography showed normal vascular structures, with no evidence of overt medium- or large-vessel involvement at the time of imaging. Brain magnetic resonance imaging was normal, with no structural CNS lesion identified.

Given the early onset of inflammatory findings, the chronic elevation of acute phase reactants, the hematologic and visceral abnormalities, and the unusual auditory involvement, a monogenic autoinflammatory disease was suspected. Genetic analysis identified a homozygous ADA2 mutation, establishing the diagnosis of deficiency of adenosine deaminase 2. This diagnosis provided a unifying explanation for the patient's longstanding inflammatory syndrome and his Behçet-like and otologic manifestations.

This case illustrates how DADA2 may remain unrecognized for years when manifestations emerge across different specialties and when classic vascular or neuroimaging abnormalities are absent on routine evaluation.

Discussion

DADA2 is increasingly recognized as a phenotypically heterogeneous disorder spanning autoinflammatory, vasculitic, hematologic, and immunodeficiency manifestations. Lymphopenia and hepatosplenomegaly are among the reported systemic features, and Behçet-like presentations have also been described. Therefore, in young patients with genital ulcers plus persistent inflammation and additional atypical findings such as cytopenia, organomegaly, or unusual neurologic/otologic symptoms, DADA2 should be considered in the differential diagnosis.

Auditory involvement is not among the most frequently highlighted manifestations of DADA2, but neurologic reviews have emphasized the broad range of neurologic and neurovascular presentations beyond overt stroke. In this patient, the most striking feature was sequential sudden bilateral hearing loss, which may reflect inflammatory or vasculopathic injury involving the inner ear or its microvascular supply. Even in the absence of abnormal brain MRI or demonstrable abdominal vascular lesions, the clinical picture was compatible with an inflammatory vasculopathy spectrum disorder.

The diagnosis of DADA2 is clinically important because treatment has implications beyond symptomatic control. International consensus and systematic reviews indicate that TNF inhibitors are the treatment of choice, especially in patients with inflammatory or vasculitic phenotypes, and are associated with prevention of ischemic events and better disease control. Early diagnosis may therefore help prevent irreversible damage, including major vascular and organ-related complications.

Conclusion

This case highlights DADA2 as an important differential diagnosis in young adults with persistent systemic inflammation, genital ulceration, lymphopenia, hepatosplenomegaly, and unexplained sudden sensorineural hearing loss. The absence of overt abnormalities on routine vascular imaging or brain MRI should not exclude the diagnosis. Recognition of this pattern is crucial, because prompt genetic confirmation may allow early targeted therapy and may help prevent irreversible complications.

Keywords: DADA2; ADA2 deficiency; sudden sensorineural hearing loss; autoinflammatory disease; Behçet-like phenotype; hepatosplenomegaly

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A Case of Disseminated Extrapulmonary Tuberculosis Developing Under Anti-TNF Therapy Despite Prior Isoniazid Prophylaxis

Objective:

To present a case of tuberculosis with a striking clinical presentation despite completed tuberculosis prophylaxis before immunosuppressive therapy.

Case:

A 49-year-old male patient had been diagnosed with Familial Mediterranean Fever (FMF) at the age of 19. At the age of 41, inflammatory low back pain developed, and bilateral sacroiliitis was detected on imaging, leading to a diagnosis of Ankylosing Spondylitis (AS). He had been followed regularly for FMF and AS since 2023. He was admitted with fatigue, fever up to 39°C for 10 days, and a 7-kg weight loss over 3 months.

He had been receiving colchicine for FMF and NSAIDs as needed for AS. In 2023, colchicine was discontinued because of recurrent diarrhea attributed to gastrointestinal intolerance, and anakinra was started. During this period, IGRA was positive, and he received 9 months of isoniazid prophylaxis. In 2025, due to worsening AS symptoms, anakinra was discontinued, foreign-sourced colchicine was reinitiated, and adalimumab was started.

Physical examination revealed painful cervical, axillary, and inguinal lymphadenopathies, the largest measuring 2 × 2.5 cm. Laboratory tests showed normocytic anemia, neutrophilic leukocytosis, and elevated acute-phase reactants. Blood and urine cultures were negative. PET/CT demonstrated widespread supra- and infradiaphragmatic lymphadenopathy. Excisional lymph node biopsy revealed necrotizing granulomatous lymphadenitis. Acid-fast bacilli staining was positive, and Mycobacterium tuberculosis was detected by PCR. Based on clinical, radiological, and pathological findings, disseminated extrapulmonary tuberculosis associated with anti-TNF therapy was diagnosed. Adalimumab was discontinued, and quadruple anti-tuberculosis therapy was initiated.

Conclusion:

Tuberculosis may still develop under anti-TNF therapy despite completed isoniazid prophylaxis and may mimic lymphoma clinically and radiologically.

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Combination biologic therapy in the coexistence of familial mediterranean fever and psoriatic spondylitis: a case report

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Introduction:

Familial Mediterranean Fever (FMF) and spondyloarthritis (SpA) coexistence has been reported in approximately 5–15% of patients and is associated with a more severe inflammatory phenotype, particularly in those with homozygous M694V mutations. These patients often present with axial involvement and may have prominent cervical spine disease.

Case:

An 18-year-old male was diagnosed with FMF at age 13 due to recurrent fever, abdominal pain, and erysipelas-like erythema. He had a strong family history of FMF, and genetic analysis revealed a homozygous M694V mutation. Colchicine (1.5 mg/day) was initiated. The patient had a history of psoriasis since age 10 and presented with inflammatory back pain for 4–5 years, along with marked neck stiffness and limited mobility. Laboratory tests showed elevated acute phase reactants (CRP: 108 mg/L, ESR: 43 mm/h). Colonoscopy performed for chronic diarrhea showed glandular atrophy and plasma cell-rich inflammation without amyloidosis. Imaging revealed bilateral sacroiliitis and cervical spine involvement, and sacroiliac MRI confirmed active inflammation. HLA-B27 was negative (image 1-2). Due to NSAID-refractory disease, infliximab was initiated. Methotrexate and low-dose steroids were added for peripheral arthritis. Owing to recurrent FMF attacks and persistent inflammation, infliximab was discontinued and anakinra was started. While FMF attacks were controlled, axial symptoms persisted. Follow-up imaging and laboratory findings (CRP: 60 mg/L, ESR: 55 mm/h) indicated ongoing inflammation, and treatment was modified to anakinra (every other day) plus adalimumab (40 mg biweekly). This combination led to clinical improvement, normalization of acute phase reactants, absence of FMF attacks, and an ASDAS-CRP score of 1.5.

Discussion:

FMF-associated SpA may present with atypical axial involvement, especially in patients with M694V mutations and psoriasis. IL-1 inhibitors control FMF but have limited efficacy in axial disease, whereas TNF inhibitors improve axial symptoms but may not suppress FMF activity. In selected cases, combination therapy may be effective; however, careful monitoring is required due to infection risk.

Image 1: Cervical spine and sacroiliac joint radiographs of the patient showing loss of cervical lordosis and sacroiliitis; grade III on the right and grade II on the left.

Image 2: Active sacroiliitis on sacroiliac joint MRI

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Recurrent Febrile Arthritic Attacks as a Hemato-Inflammatory Manifestation of Clonal Myeloid Disease

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Background

Clonal myeloid disorders are increasingly recognized as potential drivers of systemic inflammation and may mimic rheumatic disease by giving rise to a hemato-inflammatory phenotype characterized by recurrent inflammatory attacks, fever, and musculoskeletal manifestations. We present a case of late-onset inflammatory arthritis with recurrent febrile attacks associated with a clonal myeloid disorder.

Case Report

A 62-year-old man presented with a 6-month history of recurrent attacks of fever and bilateral inflammatory arthritis predominantly involving the metacarpophalangeal and proximal interphalangeal joints. There were no additional clinical or serological findings suggestive of a defined rheumatic disease. Laboratory evaluation showed markedly elevated acute-phase reactants (CRP 176 mg/L, ESR 99 mm/h), mild anemia (hemoglobin 11.3 g/dL, MCV 88.2 fL), and persistent monocytosis (1.8 $\times 10^9$/L, 19.9%).

Extensive investigations for fever of unknown origin, including infectious workup, upper and lower gastrointestinal endoscopy, and PET/CT imaging, showed no evidence of infection or solid malignancy. PET/CT demonstrated diffuse increased FDG uptake in the axial and appendicular skeleton, consistent with bone marrow activation.

Bone marrow biopsy findings were consistent with CMML. In addition, a comprehensive myeloid next-generation sequencing panel identified pathogenic IDH2 and ZRSR2 mutations, supporting the presence of an underlying clonal myeloid disorder. Taken together, these findings suggested a recurrent hemato-inflammatory syndrome associated with clonal myeloid disease.

Conclusion

This case highlights that recurrent attacks of fever and inflammatory arthritis in older adults, particularly when accompanied by marked acute-phase response and hematologic abnormalities such as monocytosis and anemia, may represent a hemato-inflammatory manifestation of an underlying clonal myeloid disorder rather than primary rheumatic disease.

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Amyloid storm in familial Mediterranean fever: rebound inflammation following IL-1 withdrawal and implications for graft survival

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Introduction

Systemic AA amyloidosis is a severe complication of familial Mediterranean fever (FMF), typically evolving after prolonged inflammation. In rare cases, an accelerated, life-threatening inflammatory surge—termed “amyloid storm”—may occur, mimicking sepsis or severe disease flare. Prompt recognition is critical, as immediate interleukin-1 (IL-1) blockade may prevent irreversible organ damage and mortality.

Case report

A 33-year-old female with FMF (MEFV M694V/M680I compound heterozygous mutations) presented in February 2025 with acute palpitations, vomiting, and diarrhea. Laboratory evaluation revealed extreme inflammation (C-reactive protein [CRP]: 597.9 mg/L), rapidly worsening renal function, and nephrotic-range proteinuria (10,260 mg/day). Based on these findings, an “amyloid storm” was clinically suspected, and intravenous anakinra (2×100 mg/day) was initiated immediately.

Renal biopsy subsequently confirmed AA amyloid nephropathy, demonstrating Congo red-positive deposits with apple-green birefringence, supporting the initial clinical diagnosis.

Due to progressive renal impairment, the patient underwent living-donor renal transplantation in December 2025. The post-transplant course was complicated by C4d-negative antibody-mediated rejection (creatinine: 1.9 mg/dL), treated with plasmapheresis and pulse corticosteroids.

In March 2026, following temporary discontinuation of anakinra, the patient developed a severe rebound inflammatory episode with creatinine rising to 2.7 mg/dL and CRP to 126.8 mg/L, unresponsive to antimicrobial therapy. Rapid re-initiation of anakinra (2×100 mg/day) resulted in prompt clinical and biochemical improvement, with creatinine decreasing to 1.67 mg/dL and CRP to 3.1 mg/L.

Conclusion

This case highlights “amyloid storm” as a distinct and life-threatening clinical entity in FMF, characterized by abrupt CRP elevation, massive proteinuria, and rapid renal deterioration. Early clinical recognition and immediate IL-1 blockade are essential, even before histological confirmation. Close monitoring of CRP and creatinine is crucial to differentiate inflammatory flares from transplant-related complications. Sustained IL-1 inhibition appears pivotal for preventing recurrence and preserving graft function.

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TNFRSF1A p.Arg121Gln-associated TRAPS with functional IL-1β hyperproduction misdiagnosed as familial mediterranean fever: a case report

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Keywords: TRAPS, FMF, colchicine, IL-1, Case Report

Abstract

Tumor necrosis factor receptor-associated periodic syndrome (TRAPS) is a rare autoinflammatory disorder caused by mutations in the TNFRSF1A gene. Due to overlapping clinical features, it may be misdiagnosed as familial Mediterranean fever (FMF), particularly in high-prevalence populations. This study aimed to present a case of TRAPS associated with a TNFRSF1A p.Arg121Gln variant, initially misdiagnosed as FMF, and supported by functional interleukin-1β (IL-1β) profiling. Clinical features, treatment response, and genetic findings were evaluated in a patient with a long-standing diagnosis of FMF. Functional IL-1β testing was performed.

A 45-year-old woman presented with recurrent attacks characterized by fever, abdominal pain, and arthralgia, which were first reported 33 years earlier. These episodes were associated with menstruation-related exacerbations, occurred approximately once per month, and typically lasted three to five days. Over time, the clinical course progressed to include chronic widespread pain, fatigue, and intermittent pharyngitis, suggesting ongoing inflammatory activity.

Prior to receiving a definitive diagnosis, she had presented to emergency departments multiple times but had not been given a unifying diagnosis. She was eventually diagnosed with FMF at the age of 35, and colchicine therapy was initiated, resulting in a noticeable reduction in the frequency and severity of attacks, particularly those characterized by fever and abdominal pain. Subsequent genetic analysis identified a heterozygous TNFRSF1A p.Arg121Gln variant, while no MEFV mutations were detected.

Given the persistence of atypical clinical features, further evaluation included functional IL-1β testing, which demonstrated IL-1-driven autoinflammatory activity. In light of the atypical clinical course, the presence of the TNFRSF1A p.Arg121Gln variant, and evidence of functional IL-1β hyperproduction, the diagnosis was revised to TRAPS associated with a TNFRSF1A variant of uncertain significance (VUS).

Colchicine therapy was continued due to sustained clinical benefit. During periods of increased inflammatory activity, short courses of anakinra were administered, resulting in marked clinical improvement, particularly in arthralgia.

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Malignant Mesothelioma mimicking Familial Mediterranean Fever: A Case Report

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Objective

There are a few publications in the literature regarding the coexistence of FMF and malignant mesothelioma (1). Both diseases cause pleuritic pain and pericarditis. Herein, we report a case of malignant mesothelioma that was misdiagnosed as FMF.

Case Report

A 34-year-old male patient was referred to the rheumatology clinic from cardiology with suspected FMF due to recurrent pericarditis for approximately 2 months. He had shortness of breath and middle chest pain approximately 3 months prior. He reported no other symptoms or history for FMF (no arthritis, abdominal pain, fever, or erysipelas-like lesions). His brother had FMF with a M694V heterozygous regularly treated with colchicine. There were no abnormal findings in his physical examination. Also, laboratory tests were normal, including acute phase reactants. Echocardiography showed a mild pericardial effusion (15 mm diameter), with no other findings. With moderate dose prednisolone (20 mg/d), 2 mg/d colchicine, and 1600 mg/d ibuprofen, no improvement was noted by cardiology. His MEFV mutation was heterozygous E148Q. Viral tests were normal, and no tuberculosis was detected. Steroid treatment was ceased, and exclusion of other etiological diseases was suggested.

The patient was admitted to our rheumatology clinic after 6 months. He had right chest pain, newly developed, unresponsive to colchicine. A thoracic CT scan was performed. It showed that the pericardial effusion had progressed and a newly developed irregular pleural mass measuring 3x8 cm, invading the right 8th rib. The thoracic surgeon suspected primary malignant mesothelioma, and the patient underwent cytoreductive surgery with HITHOC (hyperthermic intrathoracic chemoperfusion). Pathological diagnosis confirmed primary malignant mesothelioma intraoperatively. The patient stated that he lived in a village in Izmir known for asbestos exposure in childhood. He is being followed up with thoracic surgery and medical oncology routinely.

Conclusion

Even though FMF is common in our country, physicians should rule out other diseases in resistant pericarditis with atypical scenarios, such as normal acute-phase reactants and responsiveness to effective treatments.

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Familial Mediterranean Fever Coexisting With Inflammatory Bowel Disease: A Case Report

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Introduction:

Familial Mediterranean Fever (FMF) is a hereditary autoinflammatory disorder associated with MEFV gene mutations, characterized by recurrent episodes of fever and serosal inflammation. Inflammatory Bowel Disease (IBD) comprises a heterogeneous group of chronic, relapsing conditions marked by gastrointestinal inflammation. Recent studies suggest a potential association between FMF and IBD, particularly in Mediterranean populations, where MEFV gene variants may modulate intestinal inflammatory responses.

Case Presentation:

A 27 years old female patient presented with a history of recurrent abdominal pain and febrile episodes since the age of 7. Genetic testing revealed a homozygous M694V mutation, confirming the diagnosis of Familial Mediterranean Fever (FMF), and colchicine (3×1 tablet/day) therapy was initiated.

Approximately seven years ago, the patient developed widespread arthralgia and myalgia associated with prolonged febrile myalgia syndrome, prompting the addition of azathioprine. During this period, laboratory evaluation revealed elevated acute phase reactants, and the patient was screened for amyloidosis and sacroiliitis, with no evidence of proteinuria or sacroiliac joint involvement.

Despite azathioprine therapy, she continued to experience fever, myalgia, abdominal pain, and lower extremity rash, raising suspicion for leukocytoclastic vasculitis and prolonged febrile myalgia syndrome. Autoimmune and infectious workup, including ANA, ENA, RF, CCP, ANCA, and viral hepatitis markers, was negative, and abdominal CT angiography was unremarkable. Therapy was escalated to cyclophosphamide and corticosteroid, which resulted in resolution of cutaneous lesions; however, abdominal attacks persisted.

The patient was subsequently treated with anakinra, and after six months of persistent attacks, therapy was switched to canakinumab. Under canakinumab, she developed diarrhea in addition to abdominal pain attacks. Colonoscopy revealed findings consistent with inflammatory bowel disease (IBD), prompting the initiation of infliximab, mesalazine, and azathioprine. Prednisolone was avoided due to a history of avascular necrosis. Persistent bloody diarrhea under infliximab led to a transition to adalimumab.

Over the past year, the patient has remained in clinical remission under combination therapy with canakinumab and adalimumab, with the canakinumab dosing interval extended to every six weeks.

Conclusion:

Current evidence suggests a potential link between Familial Mediterranean Fever (FMF) and Inflammatory Bowel Disease (IBD) through shared genetic and inflammatory pathways,

highlighting the importance of considering IBD in FMF patients with persistent gastrointestinal symptoms.

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Fatal Secondary HLH/MAS Associated with CMV and Tuberculosis in an Immunosuppressed Patient

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Objective:

Secondary Hemophagocytic Lymphohistiocytosis/Macrophage Activation Syndrome (HLH/MAS) is a life-threatening hyperinflammatory syndrome caused by uncontrolled immune activation triggered by infections, malignancies, or autoimmune diseases. Despite treatment, mortality remains high. We present a case of HLH/MAS with refractory disease and a fatal outcome.

Case:

A 24-year-old male with a 22-year history of relapsing focal segmental glomerulosclerosis was hospitalized for elevated creatinine while receiving prednisolone and tacrolimus. Immunological tests including ANA, anti-dsDNA, antiphospholipid antibodies, PR3-ANCA, MPO-ANCA, and anti-GBM antibodies were negative. The patient had unilateral pleural effusion, and thoracentesis revealed transudative fluid. Tuberculosis PCR was negative and ADA levels were normal. Three days after renal biopsy, the patient developed flank pain and gross hematuria. Ultrasound revealed a 4×2 cm collection, and renal artery embolization was performed. Subsequently, the patient developed hemoptysis and dyspnea. Chest imaging demonstrated diffuse ground-glass opacities. Bronchoscopy confirmed diffuse alveolar hemorrhage. Laboratory findings were notable for CRP 423 mg/L, procalcitonin 9.75 µg/L, ferritin 4624 µg/L, triglycerides 438 mg/dL, fibrinogen 33 mg/dL, WBC $3.1\times10^3/\mu L$, hemoglobin 7.1 g/dL, and platelets $39\times10^3/\mu L$. Abdominal ultrasound showed hepatosplenomegaly. Bone marrow aspiration revealed hemophagocytosis.

The patient was diagnosed with HLH/MAS and started on 1 g/day methylprednisolone and anakinra 2×100 mg for 3 days, with a maintenance steroid dose of methylprednisolone 60 mg/day. The patient tested positive for high-titer CMV PCR in serum and Mycobacterium tuberculosis PCR in bone marrow aspirate, and treatment with anti-TB drugs and ganciclovir was initiated. IVIG (2 g/kg) was administered due to hypogammaglobulinemia and MAS. When ferritin levels increased to 6021 µg/L during follow-up, the anakinra dose was increased to 4×100 mg. On day 13, the patient developed alveolar hemorrhage and died.

Conclusion:

Opportunistic infections such as tuberculosis and CMV should be carefully evaluated with earlier invasive diagnostic procedures in patients with HLH/MAS receiving intensive immunosuppression.

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Does Long-Term Anakinra Treatment Increase the Risk of Infections and Tuberculosis in Patients with Familial Mediterranean Fever?

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Keywords: Familial Mediterranean fever; Anakinra; Interleukin-1 inhibition; Tuberculosis; Infections; Biologic therapy; Safety; Prospective cohort

Background:

Interleukin-1 inhibitors are increasingly used in colchicine-resistant Familial Mediterranean Fever (FMF), yet concerns remain regarding infectious complications and tuberculosis (TB) reactivation. Real-world prospective data on long-term safety are limited.

Methods:

This single-center, prospective observational cohort study included adult FMF patients receiving anakinra and followed them for 12 months with structured monthly assessments. Infection-related symptoms, antibiotic use, and hospitalizations were recorded. Tuberculosis outcomes were evaluated based on clinical history and follow-up data. Infection-positive months were defined as those with at least two concurrent infection-related symptoms. Statistical analyses included Poisson regression for antibiotic use and generalized estimating equations for repeated symptom measurements.

Results:

A total of 38 patients were enrolled, and 28 completed the 12-month follow-up. Median age was 41 years (IQR: 30.5-47.5), and 64.2% were female. Three patients (10.7%) had history of TB, and seven (25%) had received prophylaxis. No cases of active TB were observed during follow-up, including among patients without prophylaxis. One patient with positive interferon-gamma release assay who had been receiving anakinra without prophylaxis also remained free of TB activation. Infection-related symptoms were common but mild and self-limited. Recurrent symptoms were mostly respiratory. Total of 25 patients (89.2%) received at least one course of antibiotics, with a mean of 1.75 courses per patient-year. No infection-related hospitalizations or intravenous antibiotic were observed. Longer duration of anakinra was not associated with increased antibiotic use or higher frequency of infection-positive months. Small proportion of patients were receiving systemic corticosteroids and had comorbidities, including rheumatoid arthritis and amyloidosis; however, no increase in severe infectious outcomes or TB activation was observed in this subgroup.

Conclusions:

In this prospective real-world cohort, long-term anakinra in FMF patients was not associated with TB reactivation or increased risk of severe infections over 12 months. These findings

provide reassuring evidence regarding the infectious safety profile of IL-1 inhibition in monitored patients.

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Persistent Ascites in a Patient with Familial Mediterranean Fever Under Long-term Biologic Control

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Objective:

To present a rare case of sclerosing encapsulating peritonitis (SEP) causing persistent ascites in a patient with Familial Mediterranean Fever (FMF) despite sustained clinical and biochemical remission under biologic therapy.

Case:

A 41-year-old female with FMF, carrying compound heterozygous M694V/M680I mutations in the MEFV gene, presented with progressive abdominal distension over seven years. She had a history of frequent inflammatory attacks with partial response to anakinra. Over the past five years, she remained clinically stable on colchicine and canakinumab, with no attacks and consistently normal inflammatory markers. Abdominal computed tomography demonstrated clustered bowel loops encased within a fibrotic sac, accompanied by significant ascites. The patient had no history or clinical evidence of chronic liver disease. Diagnostic paracentesis revealed sterile, non-portal hypertensive ascitic fluid with no malignant cells. Comprehensive evaluation excluded portal hypertension, infection, and malignancy. A peritoneal biopsy was performed and showed features consistent with chronic fibrosing peritonitis, confirming the diagnosis of SEP. As the patient did not exhibit signs of bowel obstruction, a conservative management approach was adopted. Repeated therapeutic paracentesis was performed to alleviate symptoms, resulting in clinical improvement.

Conclusion:

SEP is a rare but serious complication that can arise in FMF patients, likely as a long-term consequence of recurrent peritoneal inflammation. This case illustrates that SEP-related ascites may persist even in patients achieving sustained remission under biologic therapy. It emphasizes the importance of thorough exclusion of more common causes of ascites and highlights that non-surgical management can be an effective strategy in selected patients without obstructive complications.

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Concurrent Ocrelizumab and Anakinra in Colchicine-Resistant Familial Mediterranean Fever and Secondary Progressive Multiple Sclerosis: A Novel Case Report with 39-Month Follow-Up

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Background:

Familial Mediterranean fever (FMF) and multiple sclerosis (MS) share overlapping pathophysiological mechanisms, including dysregulated IL-1β signaling and blood-brain barrier disruption. MEFV mutation prevalence in MS patients is reportedly four times higher than in the general population. Optimal management remains undefined when both conditions are refractory to first-line therapy. No published case of concurrent ocrelizumab and anakinra exists.

Case:

A 49-year-old woman was diagnosed with FMF in 1993 (compound heterozygous M680I/M694V). After years of attack-free follow-up on colchicine, she developed optic neuritis in 2009 and was diagnosed with MS. Following sequential therapies (interferon-beta, natalizumab, glatiramer acetate, rituximab), ocrelizumab was initiated in July 2018 for secondary progressive MS. Despite continued colchicine, three typical FMF attacks occurred in 2022 with CRP peaking at 344 mg/L. Anakinra 100 mg/day was added in December 2022. No further attacks occurred and CRP normalized. One attack occurred during a period of drug access interruption; resuming anakinra restored control. Over 39 months of dual biologic therapy, no life-threatening adverse events were observed. Infectious complications included three urinary tract infections and one lower respiratory tract infection, all managed with outpatient antibiotics. An incidentally detected parotid pleomorphic adenoma was excised at month 28 (malignancy excluded); dual biologic therapy continued. No serious MS relapses occurred, though progressive decline in ambulation continued.

Discussion & Conclusion:

IL-1β plays a central role in both FMF and MS pathogenesis. Anakinra achieved sustained attack control where ocrelizumab alone was insufficient. The safety profile was consistent with existing dual biologic literature, with infection risk remaining manageable. To our knowledge, this is the first reported case of concurrent ocrelizumab and anakinra with 39-month follow-up. Further data are needed to establish the safety and efficacy of this combination.

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Refractory Inflammation, Cytopenias, and Polychondritis: A Diagnostic Challenge Leading to VEXAS Syndrome

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Introduction

VEXAS syndrome is a late-onset autoinflammatory disorder caused by somatic UBA1 mutations, characterized by refractory systemic inflammation and hematologic abnormalities.

Case Presentation

A 63-year-old patient with chronic obstructive pulmonary disease and anthracosis presented with weight loss, fatigue, night sweats, auricular swelling, and uveitis. Laboratory evaluation showed anemia and markedly elevated acute-phase reactants.

Malignancy was excluded. PET-CT demonstrated increased FDG uptake in the auricle. Histopathological examination revealed neutrophilic infiltration and chronic inflammation, consistent with Relapsing Polychondritis. Despite sequential treatment with corticosteroids, azathioprine, methotrexate, and leflunomide, inflammatory activity persisted. Imaging findings were consistent with large-vessel vasculitis. Infliximab was initiated without adequate response and subsequently switched to Tocilizumab. The disease course was complicated by bacterial pneumonia and pulmonary thromboembolism. Further evaluation revealed macrocytic anemia and thrombocytopenia. Bone marrow examination showed cytoplasmic vacuolization in myeloid and erythroid precursors with dysplastic features. UBA1 mutation (c.122T>C, p.Met41Thr) was detected, confirming the diagnosis. Clinical and laboratory improvement was achieved under tocilizumab and corticosteroid therapy.

Conclusion

VEXAS syndrome should be considered in patients with refractory systemic inflammation and progressive hematologic abnormalities. The presence of relapsing polychondritis, cytopenias, thromboembolic events, and poor response to immunosuppressive therapy should raise suspicion.

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Colchicine toxicity without marked CK elevation: a diagnostic pitfall induced by clarithromycin

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Objective

To present a case of colchicine toxicity without marked creatine kinase elevation induced by clarithromycin, emphasizing a potential diagnostic pitfall.

Materials and methods

Clinical, laboratory, electrophysiological and histopathological findings of a 64-year-old female patient with familial Mediterranean fever (FMF) were retrospectively evaluated.

Results

A 64-year-old female with a 20-year history of FMF and ankylosing spondylitis presented with progressive weakness, myalgia, dysphagia and constitutional symptoms. Two to three weeks prior, she had received clarithromycin for sinusitis while continuing colchicine (1.5 mg/day). On admission, she had severe proximal muscle weakness, areflexia and diffuse myalgia. Electromyography demonstrated widespread myogenic involvement with myotonic discharges. Laboratory findings revealed elevated inflammatory markers and proteinuria, while renal function remained normal. Notably, creatine kinase levels were not markedly elevated despite significant neuromuscular involvement. During follow-up, the patient developed hypotension, oliguria, confusion, and required intensive care support. Infectious work-up was negative. Rectal biopsy excluded amyloidosis and supported drug-related toxicity. Colchicine and concomitant medications were discontinued, and supportive treatment was initiated. The patient showed marked clinical improvement with recovery of muscle strength and normalization of follow-up electromyography.

Conclusions

Colchicine toxicity may present with severe myoneuropathy even in the absence of marked creatine kinase elevation, representing a diagnostic pitfall. Clarithromycin-induced increase in colchicine exposure can lead to life-threatening toxicity. Early recognition and prompt discontinuation of the offending agents are essential for recovery.

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From polyarteritis nodosa to familial mediterranean fever: a missed diagnosis leading to AA amyloidosis and cardiac involvement

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Objective

To present a diagnostically challenging case of long-standing undiagnosed familial Mediterranean fever (FMF) complicated by AA amyloidosis in a patient previously treated for polyarteritis nodosa (PAN).

Materials and methods

Clinical, laboratory, imaging and histopathological findings of a 35-year-old male patient were retrospectively evaluated.

Results

The patient presented with one month of severe watery diarrhea and lower extremity edema. Since adolescence, he had recurrent self-limited episodes of monoarthritis and abdominal pain. In 2009, he was diagnosed with PAN after presenting with hypertensive crisis and renal microaneurysms, and treated with cyclophosphamide and corticosteroids. In 2013, he developed acute pulmonary edema and heart failure. Echocardiography revealed left ventricular systolic and diastolic dysfunction (ejection fraction 45%), non-obstructive hypertrophic cardiomyopathy and pulmonary hypertension. At current admission, inflammatory markers were elevated and significant proteinuria (2.38 g/day) was detected. Colonoscopy was normal. Rectal biopsy demonstrated Congo red-positive amyloid deposition consistent with AA amyloidosis. Genetic analysis revealed homozygous M694V mutation in the MEFV gene. Stool studies were negative for infection. Based on clinical findings and genetic confirmation, FMF was diagnosed. Colchicine treatment was initiated and tocilizumab therapy was planned due to amyloidosis and persistent inflammation.

Conclusions

This case highlights that FMF may remain unrecognized for years and lead to severe complications such as AA amyloidosis, particularly in patients with high-risk mutations such as homozygous M694V. Careful reassessment of clinical history is essential for early diagnosis and prevention of irreversible organ damage.

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FDG-Avid pulmonary AA amyloidosis: A diagnostic pitfall with a favorable clinical course

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Objective

Pulmonary amyloidosis is a rare disorder characterized by extracellular deposition of insoluble amyloid fibrils within lung tissue. The nodular form is particularly uncommon and may radiologically mimic primary lung malignancy or metastatic disease. In addition, some lesions demonstrate increased fluorodeoxyglucose uptake on PET/CT, which may further lead to invasive diagnostic procedures.

Case presentation

A 53-year-old man was referred to our clinic with a previously established diagnosis of pulmonary amyloidosis for evaluation of treatment strategy and follow-up. His medical history was notable for retinitis pigmentosa with severe visual impairment and steatohepatitis. In the previous diagnostic evaluation, thoracic CT revealed a 3 × 2 cm lesion in the left upper lobe with a focal infiltrative appearance, accompanied by several small subpleural nodules (<5 mm). Subsequent PET/CT demonstrated marked metabolic activity within the lesion (SUVmax 7.71). The patient underwent wedge resection of the lesion. Histopathological examination demonstrated extracellular amorphous eosinophilic deposits within the lung parenchyma. Congo red staining confirmed amyloid deposition, establishing the diagnosis of pulmonary amyloidosis. Further evaluation revealed a heterozygous MEFV R202Q mutation and mild inflammatory findings (ESR 45 mm/h, CRP 4.47 mg/L). Colchicine therapy had previously been initiated because of a suspected autoinflammatory background. When the patient presented to our clinic, persistent elevation of liver enzymes raised concern for possible drug-related hepatotoxicity; therefore colchicine was discontinued and the patient was managed with clinical and radiologic follow-up. During follow-up the patient remained clinically stable. No new pulmonary lesions or radiologic progression were detected. Serial evaluations demonstrated no proteinuria and no evidence of additional organ involvement.

Discussion and Conclusion

FDG-avid pulmonary nodular amyloidosis may represent an important diagnostic pitfall because imaging findings can strongly mimic lung malignancy. Histopathological confirmation is essential for accurate diagnosis. Careful clinical follow-up may be an appropriate management strategy in selected patients with stable disease.

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Persistent inflammation after renal transplantation in FMF-associated AA amyloidosis: looking beyond autoinflammation reveals Crohn's disease

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Objective

Familial Mediterranean Fever (FMF) is an autoinflammatory disorder characterized by recurrent inflammatory attacks and chronic systemic inflammation. The most severe complication of FMF is AA amyloidosis, which may lead to progressive renal damage and end-stage renal disease requiring dialysis or renal transplantation. Persistent elevation of inflammatory markers after transplantation is commonly attributed to ongoing FMF activity; however, additional inflammatory conditions may also contribute to systemic inflammation.

Case presentation

A 44-year-old male with MEFV M694V homozygous mutation had FMF complicated by AA amyloidosis, which progressed to end-stage renal disease requiring dialysis followed by renal transplantation in 2019. During routine follow-up after transplantation, persistent elevation of inflammatory markers was observed despite stable graft function. Laboratory evaluation revealed CRP 17.9 mg/L and creatinine 1.17 mg/dL, while urinalysis showed no proteinuria. Given the patient's history of FMF and AA amyloidosis, ongoing autoinflammatory activity was suspected and treatment with anakinra was initiated. During follow-up, the patient reported intermittent abdominal symptoms, prompting further gastrointestinal evaluation. Fecal calprotectin level was elevated, and colonoscopy with magnetic resonance enterography demonstrated segmental wall thickening in the terminal ileum near the ileocecal valve and mild diffuse wall thickening in the distal rectosigmoid colon, findings compatible with Inflammatory bowel disease and most consistent with Crohn's disease. Following the diagnosis of inflammatory bowel disease, adalimumab therapy was initiated, but discontinued due to adverse effects. Anakinra therapy was subsequently resumed, followed by normalization of inflammatory markers and clinical stability was achieved.

Discussion and Conclusion

Persistent systemic inflammation in FMF patients—particularly those with a history of AA amyloidosis and renal transplantation—should not solely be attributed to ongoing FMF activity. This case highlights that coexisting inflammatory disorders such as Crohn's disease may underlie persistent inflammation and should be considered during evaluation. Early recognition is essential for appropriate therapeutic decision-making and optimal inflammatory control.

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Silent inflammation leading to AA amyloidosis: an atypical presentation with MEFV variants and response to canakinumab

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Objective

AA amyloidosis is a severe complication of chronic inflammation and is most commonly associated with familial Mediterranean fever. Persistent elevation of acute phase reactants is generally considered essential for amyloid deposition. However, in rare cases, AA amyloidosis may develop in patients without typical inflammatory attacks or laboratory evidence of systemic inflammation. In such situations, genetic variants affecting autoinflammatory pathways may contribute to disease development and influence therapeutic decisions.

Case presentation

A 48-year-old man was evaluated for bilateral lower-extremity edema. Laboratory tests revealed nephrotic-range proteinuria of 6 g/day, hypoalbuminemia (albumin 2.8 g/dL), preserved renal function (creatinine 0.5 mg/dL), and normal C-reactive protein levels. Renal biopsy demonstrated Congo red–positive deposits consistent with AA amyloidosis. The patient did not report FMF attacks, and there was no family history of FMF. Genetic testing revealed compound heterozygous MEFV variants (V726A, E167D, and F479L). Treatment with colchicine 2 mg/day and anakinra 100 mg/day were initiated. The patient developed mild local injection-site erythema during therapy; however, treatment was continued. Despite ongoing therapy, no significant improvement in proteinuria was observed during follow-up. Treatment was subsequently switched to canakinumab 150 mg monthly. The patient has been receiving this therapy for one year. At the latest follow-up, renal function remained stable (creatinine 0.6 mg/dL), serum albumin increased to 4.5 g/dL, and proteinuria decreased to 1665 mg/day. Acute phase reactants remained within normal ranges both at diagnosis and throughout follow-up.

Discussion

This case illustrates that AA amyloidosis may develop even in the absence of typical FMF attacks or elevated inflammatory markers. MEFV variants may contribute to subclinical inflammation leading to amyloid deposition. IL-1 inhibition represents an important therapeutic strategy in such patients.

Conclusion

AA amyloidosis may occur even in the absence of overt inflammatory activity or FMF attacks. IL-1 inhibition may represent an effective therapeutic option in such patients.

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Late-onset AA amyloidosis associated with LPIN2 and MEFV variants presenting with nephrotic-range proteinuria

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Objective

AA amyloidosis results from chronic systemic inflammation and most commonly occurs in association with long-standing inflammatory or autoinflammatory diseases. Familial Mediterranean fever (FMF) is a well-recognized cause; however, atypical genetic variants affecting innate immune pathways may also contribute to amyloid deposition. Identifying such backgrounds is important in patients presenting with amyloidosis without a clearly established inflammatory disease.

Case presentation

A 61-year-old woman presented in 2017 with nephrotic-range proteinuria (5 g/day). Her medical history revealed recurrent abdominal pain attacks suggestive of episodic inflammation, although there was no family history of FMF. Autoimmune serological tests, including antinuclear antibodies and other autoantibodies, were negative. Renal biopsy demonstrated Congo red–positive deposits consistent with AA amyloidosis. At the time of diagnosis, renal function was preserved with a serum creatinine level of 0.6 mg/dL. Genetic analysis revealed heterozygous variants in the LPIN2 gene and the MEFV gene (R202Q). Considering the clinical presentation and the possible autoinflammatory background, treatment with colchicine and azathioprine was initiated. During follow-up, the patient showed a favorable clinical course. At the most recent evaluation, renal function remained stable with a serum creatinine level of 0.7 mg/dL. Proteinuria had markedly decreased to approximately 700 mg/day, and acute phase reactants were within normal limits, indicating adequate control of systemic inflammation.

Discussion

AA amyloidosis may develop in patients without a clearly defined inflammatory disease. In such cases, genetic variants affecting autoinflammatory pathways may contribute to disease development. MEFV variants are well known in FMF, while LPIN2 mutations are associated with rare autoinflammatory conditions such as Majeed syndrome. The coexistence of these variants may contribute to inflammatory dysregulation and amyloid deposition even in the absence of classical FMF.

Conclusion

AA amyloidosis can occur in patients with subtle or atypical autoinflammatory backgrounds. Genetic evaluation may help clarify the underlying inflammatory predisposition and guide long-term management.

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Discordant amyloid typing between bone marrow and kidney in a patient with multiple myeloma: a diagnostic challenge

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Objective

Amyloidosis associated with multiple myeloma is typically light-chain (AL) amyloidosis. In contrast, amyloid A (AA) amyloidosis is usually related to chronic inflammatory conditions such as Familial Mediterranean Fever (FMF). Discordant amyloid typing between different tissues is rare and may create diagnostic challenges. We present a patient with multiple myeloma in whom bone marrow and renal biopsy revealed different amyloid types.

Case

A 65-year-old male with hypertension and diabetes mellitus was evaluated after nephrotic-range proteinuria (12 g/day) was detected. Further investigations revealed multiple myeloma, and treatment with daratumumab, bortezomib, cyclophosphamide, and dexamethasone was initiated. Bone marrow biopsy demonstrated amyloid deposition compatible with AL amyloidosis, whereas renal biopsy revealed Congo red–positive deposits typed as AA amyloidosis. Because of this discordance, the renal specimen was re-evaluated with immunohistochemistry in consultation with pathology department, confirming AA amyloidosis. The patient was referred to rheumatology for evaluation of underlying inflammatory diseases. There was no history of FMF attacks or family history of FMF, and MEFV gene mutation analysis was negative. No additional inflammatory rheumatic disease or chronic infection was identified. Echocardiography and cardiac magnetic resonance imaging were compatible with cardiac amyloidosis. Electromyography showed axonal-type polyneuropathy affecting sensory and motor fibers. Rectal biopsy did not demonstrate amyloid deposition. Laser microdissection with mass spectrometry (LC-MS) could not be performed at our center. The case was discussed in a multidisciplinary council including hematology, nephrology, and rheumatology. Continuation of hematologic therapy was prioritized, with consideration of anti–interleukin-1 therapy if proteinuria persisted. After treatment, proteinuria decreased from 12 g/day to approximately 2 g/day.

Conclusions

Discordant amyloid typing between bone marrow and kidney is rare and may lead to diagnostic uncertainty. Secondary AA amyloidosis in patients with multiple myeloma is uncommon and may indicate an additional inflammatory process. Misclassification between AL and AA amyloidosis has been reported in the literature; therefore, advanced techniques such as LC-MS may help clarify amyloid type in such cases. Accurate typing and multidisciplinary management are essential for appropriate diagnosis and treatment.

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Radyofrekans Ablasyon Sonrası Gelişen Dirençli ve Tekrarlayan Perikardiyal Efüzyon

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Giriş

Perikardiyal efüzyon, kardiyak girişimler sonrası görülebilen önemli komplikasyonlardan biridir. Özellikle radyofrekans ablasyon sonrası gelişen post-kardiyak hasar sendromu/Dressler benzeri tablolar, tekrarlayan serozit ve dirençli perikardiyal efüzyon ile seyredebilir. Özellikle kolşicin ve kortikosteroide rağmen nüks eden olgularda tedavi yönetimi güçleşmekte, steroid bağımlılığı önemli bir sorun haline gelmektedir. Bu olguda, radyofrekans ablasyon sonrası gelişen ve standart tedavilere rağmen tekrarlayan dirençli perikardiyal efüzyonun seyri ile anakinra tedavisine yanıt sunulmuştur.

Olgu Sunumu

Elli dokuz yaşında kadın hasta, bigemine ventriküler ekstrasistol nedeniyle radyofrekans ablasyon uygulanmasının ardından takip edildi. İşlemden yaklaşık 10 gün sonra gelişen dispne üzerine yapılan değerlendirmede perikardiyal efüzyon saptandı ve tablo ablasyon sonrası erken Dressler sendromu/post-kardiyak hasar sendromu ile uyumlu kabul edildi. Başlangıçta drenaja uygun olmayan efüzyon için kolşicin, ibuprofen ve asetilsalisilik asit tedavisi başlandı. İlk kontrol ekokardiyografide gerileme eğilimi olsa da takiben nefes darlığında artış ile yapılan Ekokardiyografide tamponad kliniği belirgin olmamakla birlikte sağ atriyal bası ve kapak akımlarında solunumsal varyasyon saptanması üzerine perikardiyosentez uygulandı, 600 cc perikardiyal sıvı boşaltıldı. Enfeksiyon, malignite ve diğer sistemik romatolojik etiyolojilere yönelik değerlendirmede patoloji saptanmadı, PET-CT'de anlamlı tutulum izlenmedi. İzlemde perikardiyal efüzyonun steroid azaltımı ile tekrar arttığı, CRP yüksekliliği eşliğinde tekrarlayan ataklarla seyrettiği ve kolşicin, nonsteroid antiinflamatuvar tedaviler, kortikosteroid ve sonradan eklenen Metotreksata rağmen tam kontrol altına alınamadığı görüldü. Bu tedavi altında persistan perikardiyal sıvı ve inflamasyon nedeniyle olgu idiopatik serozit/post-kardiyak hasar sendromu spektrumunda değerlendirildi; Anakinra tedavisi başlandı. Sonraki kontrollerde erken klinik ve AFR yanıtı alındı, perikardiyal sıvı kademeli olarak tamamen geriledi.

Sonuç

Bu olgu, kardiyak ablasyon sonrası gelişen perikardiyal efüzyonun bazı hastalarda kendini sınırlayan bir komplikasyon olmaktan çıkıp, kolşicin ve kortikosteroide rağmen nüks eden, steroid azaltımı ile alevlenen dirençli inflamatuvar bir perikardit/perikardiyal efüzyon tablosuna dönüşebileceğini göstermektedir. Doğrudan kardiyak işlem sonrası dirençli perikardiyal efüzyonda Anakinra kullanımına ilişkin veri sınırlı olsa da, post-kardiyak hasar sendromu sonrası gelişen benzer olgu bildirimlerinde hızlı klinik ve ekokardiyografik düzelme bildirilmiştir; olguda da bu hastalarda Anakinra etkinliğini destekler nitelikte yanıt alınmıştır.

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Challenging Cases with Severe Gastrointestinal Involvement in IgA Vasculitis

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Objective

Although IgA vasculitis is the most common vasculitis of childhood, it may follow a severe and life-threatening course in some patients. While skin and joint involvement are the most frequent manifestations, gastrointestinal involvement represents a major determinant of morbidity. Although most cases respond well to corticosteroid therapy, a subset of patients fail to achieve disease control with first-line treatment and may require advanced immunomodulatory or interventional therapies. In this study, we aimed to describe the clinical characteristics and treatment courses of patients with IgA vasculitis presenting with severe gastrointestinal involvement and to explore the possible contribution of MEFV gene mutations to disease severity.

Methods

Patients followed with a diagnosis of IgA vasculitis at the Pediatric Rheumatology Department of Başakşehir Çam and Sakura City Hospital between 2024 and 2026 were retrospectively evaluated. Patients with severe gastrointestinal involvement were identified through the hospital information management system and included in the study. Demographic characteristics, clinical findings, treatment modalities, complications, need for intensive care, surgical interventions, and genetic analysis results were recorded.

Results

Five patients with IgA vasculitis and severe gastrointestinal involvement were identified between 2024 and 2026. The patients were between 7 and 14 years of age; two were female and three were male. All patients were hospitalized because of abdominal pain suggestive of gastrointestinal involvement and initially received methylprednisolone therapy. All cases had palpable purpuric rashes consistent with IgA vasculitis. During the clinical course, hematemesis was observed in two patients and hematochezia in four patients. All patients received pulse methylprednisolone therapy. Plasmapheresis was performed in three patients, and intravenous immunoglobulin was administered to three patients. One patient underwent surgery for intussusception, while two patients required surgical intervention for gastrointestinal perforation. Four patients were monitored in the pediatric intensive care unit. Pancreatitis developed in three patients. Regarding extraintestinal organ involvement, proteinuria was detected in two patients, and joint follow-up with pediatric nephrology was planned; these patients were started on enalapril treatment. Due to treatment resistance or severe clinical course, cyclophosphamide was administered to three patients, while azathioprine and mycophenolate mofetil were each used in two patients. Three patients also received colchicine. The median length of hospital stay was 33 days, and the median duration of pediatric intensive care unit stay was 4 days. Genetic analysis revealed a noteworthy finding: two of the five patients were found to carry a heterozygous M694V mutation in the MEFV gene, whereas no MEFV mutation was detected in the remaining three patients. The presence of MEFV mutations in this group of patients with severe gastrointestinal involvement suggests that these variants may contribute to the amplification of the

inflammatory response. Although the number of patients is limited, this finding indicates that the possible impact of MEFV variants on the clinical course should not be overlooked in patients with severe IgA vasculitis.

Conclusion

Although IgA vasculitis is generally considered a self-limited disease with a favorable prognosis, patients with severe gastrointestinal involvement may experience rapid clinical deterioration, require intensive care, undergo surgical intervention, and need multiple immunosuppressive therapies. Therefore, close clinical monitoring and a multidisciplinary approach are of great importance in patients with suspected severe involvement. There is no single standardized treatment strategy applicable to all such patients; rather, therapy should be individualized according to clinical severity, complications, and treatment response. In addition, the detection of heterozygous M694V MEFV mutations in two patients in this case series suggests that MEFV gene analysis may provide additional clinical insight, particularly in patients with severe and treatment-resistant IgA vasculitis.

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Tuberculous Lymphadenitis During Canakinumab Therapy in a Patient with Familial Mediterranean Fever: A Case Report with Subsequent Perimyocarditis and Spondyloarthritis

Background

Familial Mediterranean Fever (FMF) is a hereditary autoinflammatory condition marked by recurrent febrile episodes and serositis. While colchicine remains the first-line therapy, interleukin-1 (IL-1) inhibitors—particularly canakinumab—are increasingly employed in patients who are either resistant or intolerant to colchicine. Although IL-1 blockade is generally associated with a lower risk of tuberculosis (TB) reactivation compared to TNF-α inhibitors, available data are limited, and careful monitoring remains essential.

Case Presentation

We report a 26-year-old male with colchicine-resistant FMF who developed cervical tuberculous lymphadenitis during long-term canakinumab therapy. The diagnosis was confirmed by histopathological examination and polymerase chain reaction (PCR) testing, despite the absence of pulmonary involvement. Canakinumab was discontinued, and the patient received standard anti-TB therapy. During the treatment course, he developed acute perimyocarditis followed by inflammatory back pain and peripheral arthritis. Magnetic resonance imaging revealed active unilateral sacroiliitis, suggestive of FMF-associated spondyloarthritis. Reintroduction of canakinumab led to marked clinical improvement.

Conclusion

This case illustrates that active TB may still occur under IL-1 inhibition, reinforcing the need for comprehensive latent TB screening before initiating biologic treatment—even those considered low-risk. Additionally, the recurrence of severe inflammatory manifestations following interruption of IL-1 therapy underscores the challenges of managing infection risk while maintaining disease control in autoinflammatory conditions like FMF. Careful clinical judgment and a multidisciplinary approach are vital to balancing these therapeutic priorities.

Keywords

Lymph Node Tuberculosis; Canakinumab; Interleukin-1 Inhibitors; Familial Mediterranean Fever (FMF); Spondyloarthritis; Pericarditis; Myocarditis

PP - 69

Suspected spondylodiscitis in a patient with FMF and a history of brucella infection: a diagnostic dilemma

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Objective

Familial Mediterranean fever (FMF) is an autoinflammatory disease that may involve the musculoskeletal system. Axial pain in FMF is often attributed to inflammatory involvement; however, infectious causes should also be considered, particularly in endemic regions. This study aims to highlight the diagnostic challenges in distinguishing inflammatory and infectious causes of low back pain in FMF patients.

Materials and Methods

A 51-year-old female patient with FMF under colchicine treatment presented with severe low back pain. Clinical findings, laboratory parameters, serological tests, and imaging studies were evaluated.

Results

The patient had a history of two previous brucellosis infections. Laboratory findings showed normal inflammatory markers, negative Brucella IgM, positive IgG, and negative HLA-B27. Lumbar MRI revealed findings suggestive of spondylodiscitis, including bone marrow edema at L5–S1 endplates, disc signal changes, and soft tissue enhancement. However, there was a discrepancy between imaging findings and clinical–laboratory data, with no strong evidence of active infection. Despite this, empirical antibiotic therapy was initiated following multidisciplinary evaluation.

Conclusion

Low back pain in FMF patients is not always indicative of inflammatory involvement. Infectious and other non-rheumatologic causes should be carefully considered in the differential diagnosis. A comprehensive evaluation integrating clinical, laboratory, and imaging findings is essential to avoid misdiagnosis and unnecessary treatment.

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Genotype-phenotype associations in familial mediterranean fever: a russian cohort study

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Introduction

Familial Mediterranean fever (FMF) is the most prevalent monogenic autoinflammatory disease (mAIDs), caused by recessively inherited MEFV gene mutations. MEFV genetic variants differ in penetrance and disease severity.

Aim

to identify genetic variants and clinical associations of patients with FMF in Russian cohort

Methods

Inclusion criteria: established diagnosis of FMF. Exclusion criteria: the presence of additional variants in genes responsible for the development of other mAIDs. 93 patients (pts) were analyzed (retrospective study). Median age 12[6;17], F:M=1:1.7. Genetic variants were assessed using the ACMG criteria. 60% were Armenian origin.

Results

There were identified 15 different genetic variants. In the overwhelming majority of cases, genetic variants were localized in exon 10, and 57% cases – a single variant in homo- (31%) or heterozygous (24%). The most common genetic variant was M694V (68% pts). Some other variants were less common: V726A (18%), M680I (16%), K695R (15%). The pathogenic variant was the leading in 83% pts. VUS were observed in 14%. The most common symptoms were fever (97%), abdominal pain (87%), arthralgia (55%; arthritis – 43%), skin lesions (36%; only 6 cases with erysipelas-like erythema). Family history were in 59%. The most common genotypes were identified to compare clinical manifestations: M694V (n=39), M694V with other genetic variants (M694V+; n=17), K695R (n=12), V726A+ (n=10), M694V/M680I (n=7), M680I+ (n=5). Abdominal pain was observed more often in cases with variants M694V, M680I, V726A then with K695R (p=0.033). On the contrary skin lesions were more often with K695R then others (p=0.009). Comparing cases M694V and M694V+ skin lesions and arthralgia (p=0.028 and =0.008) were more often in cases with M694V.

Conclusions

Among 15 identified different genetic variants the most common was M694V (68%; 44% - homozygous, 38% - compound heterozygous, 17% - heterozygous). Associations have been found between abdominal pain, skin lesions, arthralgia and certain genetic variants.

Disclosures

none

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THE EFFECT OF MEDITERRANEAN DIET ADHERENCE ON DIETARY INTAKE AND QUALITY OF LIFE IN ADULTS WITH FAMILIAL MEDITERRANEAN FEVER

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Rationale

Familial Mediterranean Fever (FMF) is a hereditary autoinflammatory disease characterized by recurrent inflammatory attacks and persistent subclinical inflammation even during attack-free periods. The Mediterranean diet (MD) has anti-inflammatory properties and is associated with improved outcomes in chronic inflammatory diseases. However, the effect of MD adherence on dietary intake is unclear in FMF. Thus, this cross-sectional study aimed to evaluate the effect of MD adherence on dietary intake and quality of life in adults with FMF.

Methods

Sixty-two adults (≥18 years) who were followed in the rheumatology clinic of a university hospital were included. MD adherence, dietary intake, and quality of life were assessed using the Mediterranean Diet Adherence Screener (MEDAS), three-day food record, and FMF Quality of Life Scale (FMF-QoL), respectively. Participants were categorized into low (MEDAS<7), moderate (MEDAS: 7–<9), and high (MEDAS≥9) MD adherence groups.

Results

MD adherence varied among participants, with 37% low adherence, 39% moderate adherence, and 24% high adherence. No differences were detected between groups, except for carotene intake ($p=0.028$), which was significantly lower in the low adherence group compared to the moderate adherence group ($p=0.009$).

Conclusion

According to our results, MD adherence does not have an effect on dietary intake and quality of life in FMF. However, the low intake of carotene in the low MD adherence group might be important when the antioxidant properties of carotenoids are considered.

Note

Bu bildiride yer alan detaylı karşılaştırma tablosu (Mediterranean Diet Adherence Levels - Dietary Intake and Quality of Life), orijinal PDF dosyasında yer almaktadır.

Disclosure of Interest

None Declared