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AB1065 VISIT COMPLIANCE IN PATIENTS WITH FAMILIAL MEDITERRANEAN FEVER: RESULTS FROM A GAZI UNIVERSITY FMF COHORT

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Background: Follow-up in all rheumatologic patients is critical, particularly Familial Mediterranean Fever (FMF). Current recommendations for all experts by the EULAR state that patients with FMF should be evaluated 6-monthly intervals to monitor the character and frequency of the attacks and the acute phase response. Disease-related complications such as amyloidosis can be *asymptomatic* and need only a careful follow-up.

Objectives: to quantify this phenomenon and to find predictive factors of visit compliance in patients with FMF.

Methods: The study included 474 adult patients with a diagnosis of FMF who followed at the outpatient rheumatology clinic of tertiary university hospital, from January 2018 to December 2018. Demographic, socioeconomic data, family history, comorbid disease, medication history, characteristics, the International Severity Score for FMF (ISSF), autoinflammatory disease damage index (ADDI) were recorded. Visit compliance was defined as the presence of two visits in the outpatient rheumatology clinic for FMF last one year for the purposes set out in EULAR suggestion. Those who had fewer than two visits in the last one year were considered noncompliant.

Results: 230 (48.5%) were compliant while 244 (51.5 %) patients were noncompliant with their rheumatology visit. Both compliant and noncompliant patients had similar median age and disease duration. Female sex and being married was increased the visit compliance. The results of the logistic regression model exploring factors associated with compliance indicated that presence of family history in parents, absence of family history in sibling, treatment with biologic agents, other drug using, presence of more than 2 attacks except fever and adequate medical care were important predictors of visit compliance.

Table 1. Descriptive characteristics of the patients with FMF, n=474

Variable	Compliant (n=230)	Noncompliant (n=244)	P value
Gender of patient (F)	142(61.7)	147(60.2)	0.73
Age, years*	35(28-42.5)	34(27-44.2)	0.88
Being Married	152(66.1)	146(59.8)	0.15
Disease duration, years*	22(14-31)	22(15-31)	0.71
Number of index flare* within last 12-month	6.7(1-10)	5(3-10)	<0.001
Family history of parents	54(23.5)	39(16.0)	0.04
Family history of sibling	73(32.9)	102(43.4)	0.02
Comorbid disease presence	73(31.7)	55(22.5)	0.02
Treatment			<0.001
Colchicine	230 (94.1)	180(78.6)	
Anakinra&Canakinumab	134(5.3)	49(21.4)	
Colchicine response presence	127(55.2)	126(52.3)	0.52
Drug using except FMF	74(32.2)	44(18.0)	<0.001
Presence of 2 attacks except fever	90 (39.1)	68(27.9)	0.009
Chronic peripheral arthritis	16(7.0)	7(2.9)	0.03
Amyloidosis	18(7.8)	9(3.7)	0.05
Proteinuria	23(10.8)	8(3.6)	0.004
Adequate medical care	161(70.0)	132(54.8)	<0.001
ISSF severity score*	3(2-4)	3(2-4)	0.02
ADDI index*	1(0-1)	1(0-1)	0.05

Conclusion: In conclusion, if FMF patients visit compliance increase, their functionality, medication adherence and quality of life will increase and flares and complication of disease can decrease. Thus, we highlight some recommendations for FMF specialist, patients and health care providers to improve outcomes.

Table 2. Multivariate logistic regression analysis for predictive factors of visit compliance of the patients with FMF, n=430

	Adj. OR	%95 CI**	p
Family history in parents (positive history vs negative)	1,8	1,0-3,1	0.03
Family history in sibling (negative history vs positive)	1,9	1,2-3,1	0.004
Comorbid disease status	1,3	0,7-2,5	0.32
Treatment (anakinra&canakinumab vs colchicine)	3,7	1,7-8,2	0.001
Drug using (other drugs vs FMF drugs)	2,2	1,1-4,4	0.01
More than 2 attacks except fever	2,3	1,2-4,0	0.004
Chronic peripheral arthritis	2,3	0,8-6,6	0.10
Proteinuria	2,2	0,7-6,7	0.14
Adequate medical care	1,9	1,2-3,1	0.003
Number of index flare within last 12-month	0,9	0,9-1,0	0.38
ISSF severity score	0,8	0,7-1,1	0.30

Disclosure of Interests: None declared

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AB1066 EFFICACY AND SAFETY OF APREMILAST IN BEHÇET DISEASE PATIENTS

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Background: Apremilast (APR), a small molecule inhibitor of phosphodiesterase-4, has been shown to be effective in the treatment of oral and genital ulcers in Behçet's disease (BD). BD is a systemic vasculitis with great heterogeneity of symptoms and manifestations. It can affect the blood vessels, mucosa, skin, joints, eyes, nervous system and digestive system. APR is indicated for treatment of oral ulcers in BD in some countries such as the USA and Japan.

Objectives: To evaluate the efficacy and safety of APR treatment in BD patients.

Methods: Single-center descriptive study of BD patients on APR treatment from February 2017 to December 2019. Demographic, clinical and analytical data were collected.

Results: 10 patients (9 women) were included, with a mean age at the beginning of APR treatment of 37±12 years and a mean disease evolution of 100±105 months. 8 of them showed HLAB51 positivity.

Before treatment with APR, 4 patients were refractory to DMARDs (2 MTX, 2 AZA) and one patient to 2 anti-TNF (ADA, IFX). All patients were under treatment with colchicine and 5 with steroids before APR therapy. The concomitant treatment with APR were: corticosteroids (5), NSAIDs (2), colchicine (8), MTX (2), AZA (2). The main symptoms at the beginning of the APR treatment were: oral ulcers (100%), genital ulcers (60%) and arthritis/arthritis (90%). We observed a clinical improvement after 3 months of treatment of 90% of oral ulcers, 100% of genital ulcers and 55% of joint symptoms. The patients had a mean follow-up of 37±12 months and they maintain the therapy response during the APR treatment. Patients presented adverse events, some of them transitory: headache (5), diarrhea (5), nausea (3), dysphagia (1), tremors (2), herpes zoster (1) and autolytic ideation (1). The treatment was withdrawn in 4 patients with a mean duration of 11 ± 13 months. 2 of the 4 adverse events were by autolytic ideation and nausea, 1 for genic desire and 1 for persistence of joint injury. The APR doses were reduced to 30mg per day in 4 patients, resolving the adverse events and persisting with a good response. In addition, dose reduction of colchicine and prednisone was achieved in 4 patients.

We observed other previous manifestations of BD such as uveitis (4), neurobehçet (3), cutaneous (folliculitis/pseudofolliculitis) (4) and venous thrombosis (1). Cutaneous manifestations were resolved and the rest of previous manifestations remain without clinical changes during the follow-up.

Conclusion: We observed an improvement in the most common manifestations of BD and a safety profile similar to those described in other studies. We observed a resolution of mucocutaneous manifestations, a variable response in joint manifestations and stability in neurological manifestations. Adverse effects referred included gastrointestinal and headache, most of which were transient and were resolved with adjustment of treatment.

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AB1067 CASE OR FAMILY? FROM 2 CHINESE FCAS3 CHILDREN WITH PLCG2 MUTATION TO THEIR FAMILIES.

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Background: Familial cold autoinflammatory syndrome 3 (FCAS3) is an autoinflammatory disease (AID) caused by mutation of the PLCG2 gene, which has not been reported in China. We will report 2 cases of Chinese FCAS3 patients with no claimed family history, but we found the same mutations in a parent during their genetic analysis. After further inquiry of the parent's medical history, we confirmed that actually, they were two FCAS3 families. Through a literature review, we found that the clinical features of Chinese patients are milder than foreign countries, and their symptoms are concealed and may be ignored, resulting in mistakes in family history collecting.

Objectives: To summarize the genetic and clinical features of Chinese FCAS3 patients and to provide diagnostic recommendations for the disease.

Methods: Two suspected AID children with recurrent fever and urticaria were enrolled in this study. Clinical data and family history were collected, and genetic analysis was performed by next-generation sequencing (PID panel or WES) and Sanger-based validation. Literature was reviewed from PubMed, CNKI, and Wanfang Database.

Results: The two children were both diagnosed to be FCAS3 with PLCG2 mutation. The clinical manifestations of 2 children were recurrent fever, urticaria, and increased ESR and CRP. Case 1 has a paternal, and Case 2 has a maternal heterozygous mutation in the PLCG2 gene, while both had claimed without a family history. Further inquiry showed the two parents used to have a fever with urticaria. By comparing with foreign literature, we found our patients were milder than abroad patients. Large fragment deletions were relatively more common in foreign patients.

Conclusion: We reported the case of FCAS3 in China for the first time. Their genotype and phenotype were different from foreign patients. Their symptoms are mild, and heterozygous mutations are more common than foreign patients, which are the main differences. The difference in mutation type may be the reason for different clinical manifestations. Besides, both two families showed a trend of more severe clinical features in the next generation. As the symptoms of the elders were not obvious and may be ignored, it caused trouble for the genetic diagnosis. Therefore, family history should be collected carefully. For rashes and fevers, which are not too severe in overall symptoms, care should be taken about the possibility of AIDs. Genetic testing can help to make a definite diagnosis.

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AB1068

REGULATORY EFFECT OF SHORT-TERM LOW DOSE OF IL-2 RESTORES REGULATORY T CELLS IN IGG4-RELATED DISEASE

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Background: Little known about the roles of peripheral immune cell subsets in IgG4-related disease (IgG4-RD).

Objectives: The aim of our study was to analyze the role of low-dose interleukin-2 (IL-2) on these cells in IgG4-RD.

Methods: The percentage and absolute counts of lymphocyte subpopulations [CD3+ (T cells), CD4+, CD8+, CD19+ (B cells) and CD16+CD56+ (NK cells)] and CD4+T cell subsets (Th1, Th2, Th17, regulatory T (Treg)) using single platform

flow cytometry in 25 IgG4-RD patients which were admitted and treated, as well as 24 healthy controls (HCs). Among IgG4-RD patients, 19 patients given only conventional treatments while 5 patients were not only given conventional treatments but also received IL-2 (0.5 million IU/day) for 5 days.

Results: We found that the absolute counts of T, CD4+T and Th1 cells were increased in the peripheral immune cells of IgG4-RD patients when compared with HCs. Meanwhile, the percentage of B, Th2, Th17 and Treg cells demonstrated significantly decreased. The ratio of Th1/Th2 and Th1/Treg in IgG4-RD patients were higher than that in HCs. After IL-2 administration, the absolute numbers of Treg cells increased dramatically, furthermore, the proportion of Treg cells had a trend towards higher values compared with those before treatment. Conversely, the ratio of Th2/Treg was downward. There were no any significant differences in the above subsets between before and after conventional treatments.

Conclusion: Our findings support that the reduction of Treg cells in IgG4-RD patients, as well as IL-2 combined with conventional treatments were able to restore the Treg cells.

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AB1069

CONSIDERATION OF YAO SYNDROME AS A DIFFERENTIAL DIAGNOSIS FOR HEREDITARY PERIODIC FEVER SYNDROMES

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Background: Yao syndrome (YAOS, OMIM 617321), formerly termed nucleotide-binding oligomerization domain 2 (NOD2)-associated autoinflammatory disease, is characterized by periodic fever, dermatitis, arthritis, and swelling of the distal extremities, as well as gastrointestinal and sicca-like symptoms. This disorder shares similar clinical phenotypes with hereditary periodic fever syndromes (HPFS) and thus can mimic one another.

Objectives: This study aimed to exemplify by a comparison of YAOS vs familial Mediterranean fever (FMF).

Methods: In this retrospective study, electronic medical records of a series of patients with YAOS were analyzed. All patients underwent genetic testing for periodic fever syndrome 6-gene panel (MEFV, TNFRSF1A, NLRP3, MVK, NLRP12 and NOD2).

Results: All patients were Caucasian and had recurrent fever, patchy erythema, arthralgia, and gastrointestinal symptoms (Table 1). With negative DNA sequencing for MEFV, these patients were treated with colchicine for presumed FMF, with a good response in patient 2 and minimal or transient response in other two patients. Further genetic testing identified the NOD2 variants. Unlike HPFS, YAOS is generally sporadic and is mostly reported in adults; spongiotic dermatitis is common; YAOS is associated with the NOD2 variants, IVS8+158 in nearly all patients, IVS8+158/R702W in up to 30%, and IVS8+158/1007fs, G908R or other rarer NOD2 variants in some patients.

Conclusion: YAOS can masquerade HPFS like FMF. Molecular analysis should cover NOD2 whole gene sequencing to help distinguish these diseases.

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