recurrent fevers from the Eurofever registry. Orphanet Journal of Rare Diseases. 2017;12(1):16.

- [3] Papa R, Lachmann HJ. Secondary, AA, Amyloidosis. Rheum Dis Clin North Am. 2018;44(4):585–603.

Acknowledgement: The presenting author would like to thank the European Federation of Immunology (EFIS) for the short term fellowship bursary.

Disclosure of Interests: Riccardo Papa: None declared, Thirusha Lane: None declared, Taryn Youngstein: None declared, Tamer Rezk: None declared, Charalampia Papadopolou: None declared, Nicolino Ruperto Grant/research support from: The Gaslini Hospital, where NR works as full-time public employee, has received contributions (> 10.000 USD each) from the following industries in the last 3 years: BMS, Eli-Lilly, GlaxoSmithKline, F Hoffmann-La Roche, Janssen, Novartis, Pfizer, Sobi. This funding has been reinvested for the research activities of the hospital in a fully independent manner, without any commitment with third parties., Consultant for: Received honoraria for consultancies or speaker bureaus (< 10.000 USD each) from the following pharmaceutical companies in the past 3 years: Ablynx, AbbVie, Astrazeneca-Medimmune, Biogen, Boehringer, Bristol-Myers Squibb, Eli-Lilly, EMD Serono, GlaxoSmithKline, Hoffmann-La Roche, Janssen, Merck, Novartis, Pfizer, R-Pharma, SanofiServier, Sinergie, Sobi and Takeda., Speakers bureau: Received honoraria for consultancies or speaker bureaus (< 10.000 USD each) from the following pharmaceutical companies in the past 3 years: Ablynx, AbbVie, Astrazeneca-Medimmune, Biogen, Boehringer, Bristol-Myers Squibb, Eli-Lilly, EMD Serono, GlaxoSmithKline, Hoffmann-La Roche, Janssen, Merck, Novartis, Pfizer, R-Pharma, SanofiServier, Sinergie, Sobi and Takeda., Paul Brogan Grant/research support from: SOBI, Novartis, Roche, Novimmune, Chemocentryx, Consultant for: Roche, SOBI, Speakers bureau: SOBI, Roche, Novartis, UCB, Philip N Hawkins: None declared, Patricia Woo: None declared, Marco Gattorno Grant/research support from: MG has received unrestricted grants from Sobi and Novartis, Helen J. Lachmann Grant/research support from: SOBI, Novartis, Consultant for: Novartis, Takeda, Speakers bureau: SOBI. Novartis

DOI: 10.1136/annrheumdis-2019-eular.2502

FRI0538

MAY SOME OF THE MEFV GENE VARIANTS CAUSE PFAPA SYNDROME LIKE SYMPTOMS?

Mehmet Yildiz, Amra Adrovic, Ipek Ulkersey, Neslihan Gucuyener, Oya Koker, Sezgin Sahin, Kenan Barut, Ozgur Kasapcopur. *Cerrahpasa Medical School, Istanbul University Cerrahpasa, Department of Pediatric Rheumatology, Istanbul, Turkey*

Background: PFAPA syndrome is characterized by periodic fever, aphthous stomatitis, pharyngitis and cervical adenitis. As diagnosis usually depends on clinical diagnostic criteria, sometimes it can be difficult to distinguish this clinical entity from the other periodic fever syndromes, especially in regions endemic for FMF.

Objectives: The objective of the study is to evaluate the PFAPA patients' MEFV gene variation frequencies (if it was performed) and relations between detected variants and clinical manifestations in pediatric PFAPA patients.

Methods: Nine hundred and thirty-seven patients that were recorded to our database as PFAPA syndrome were evaluated. Patients were reached by phone and asked about characteristics of their fever episodes, presence of acute phase reactant elevation, pharyngitis, aphthous stomatitis/cryptic tonsillitis, cervical lymphadenopathy, arthralgia, arthritis, abdominal pain, headache, nausea or vomiting, chest pain, diarrhea, skin changes, myalgia and conjunctivitis in the course of fever attack, if they had tonsillectomy, if they were attack-free after tonsillectomy and if they had clinical response to steroid or colchicine.

Results: There were 937 PFAPA patients in our database. MEFV gene analysis was performed in 407 (%43) of PFAPA patients and 305 of them had at least one mutation. Most common MEFV mutations of patients were: R202Q heterozygotes (25,9%), M694V heterozygotes (24,2%), E148Q heterozygotes (13,4%), P369S heterozygotes (9,8%) and V726A heterozygotes (8,6%), respectively.%45.8 of detected mutations were located in exon 2,%40,3 of them were located in exon 10 and% 13,9 of them were located in exon 3 of the MEFV gene. Patients were divided into five groups according to their mutations' localization and groups were compared according to clinical features. There were significant differences between groups according to presence of pharyngitis, arthralgia, abdominal pain, myalgia and tonsillectomy history (Table 1).

Table 1. Comparison of patients according to their mutations' location and clinical features.

		Exon 2	Exon 3	Exon 10	No Mutation	MEFV study not performed	p
Pharyngitis	Yes	21	9(40,9)	45	28 (87,5)	168(87,5)	<0,05
	No	(87,5)	13 (59,1)	(80,4)	4(12,5)	24(12,5)	
Aphthous stomatitis/Cryptic tonsillitis	Yes	15	8(36,4)	21	17 (53,1)	102(53,1)	0,11
	No	(62,5)	14 (63,6)	(37,5)	15(46,9)	90(46,9)	
Cervical lymphadenopathy	Yes	10	8(36,4)	21	14(56,3)	77(40,1)	0,97
	No	(41,7)	14 (63,6)	(37,5)	18(43,7)	115(59,9)	
Arthralgia	Yes	5(20,8)	11(50)	22	19(59,4)	66(34,5)	0,02
	No	19 (79,2)	11(50)	(39,3)	13(40,6)	126(65,5)	
Abdominal Pain	Yes	17	12	27	16(50)	56(70,8)	<0,05
	No	(70,8)	(54,5)	(48,2)	16(50)	136(29,2)	
Myalgia	Yes	0(0)	8(36,4)	9(16,1)	7(21,9)	24(12,5)	0,006
	No	24(100)	14 (63,6)	47 (83,9)	25(78,1)	168(87,5)	
Tonsillectomy	Yes	14	5(22,7)	21	20(62,5)	109(57,1)	0,005
	No	(58,3)	17 (77,3)	(38,9)	12(37,5)	82(42,9)	

Conclusion: In this study, we reported increased frequency of MEFV mutations in a large PFAPA patients cohort. Frequency differences of clinical features between groups suggest that some of the MEFV gene mutations may modify phenotype of PFAPA syndrome. Furthermore, underlying MEFV gene mutations possibly lead to PFAPA like clinical presentation in FMF patients. Another remarkable finding of this study is the relatively high P369S mutation rates in patients with PFAPA syndrome.

REFERENCES:

- [1] Pehlivan E, Adrovic A, Sahin S, et al. (2018). PFAPA Syndrome in a Population with Endemic Familial Mediterranean Fever. The Journal of pediatrics, 192, 253-255.
- [2] Yamagami K, Nakamura T, Nakamura R, et al. (2017). Familial Mediterranean fever with P369S/R408Q exon3 variant in pyrin presenting as symptoms of PFAPA. Modern rheumatology, 27(2), 356-359.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.2258

FRI0539

WNT6 MUTATION CAUSES AN EARLY ONSET GRANULOMATOUS INTESTINAL DISEASE WITH RECURRENT HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS (HLH)

Claudia Bracaglia¹, Daniela Knafelz², Fiammetta Bracci², Antonella Insalaco¹, Giulia Marucci¹, Manuela Pardeo¹, Giusi Prencipe¹, Ivan Caiello¹, Antonia Pascarella¹, Marcello Niceta³, Francesca Pantaleoni³, Andrea Cioffi³, Bronislava Papadatou², Marco Tartaglia³, Giuliano Torre², Fabrizio De Benedetti¹. ¹IRCCS Ospedale Pediatrico Bambino Gesù, Division of Rheumatology, Rome, Italy; ²IRCCS Ospedale Pediatrico Bambino Gesù, Hepatology, Gastroenterology and Nutrition Unit, Rome, Italy; ³IRCCS Ospedale Pediatrico Bambino Gesù, Genetics and Rare Diseases Research Division, Rome, Italy

Background: Use of NGS in patients with unclassifiable disease lies a possible approach to the identification of novel disease causing genes.

Objectives: We report a patient with an early onset inflammatory bowel disease with granulomatous lesions and recurrent HLH episodes carrying a missense mutation in the WNT6 gene.

Methods: A trio based Whole Exome Sequencing (WES) approach was used. Cytokine levels were measured by multiplex assay and by specific ELISAs.

Results: Ten years old Caucasian boy affected by early onset pan-colitis from 9 months of age. Since the disease onset the patient is on glucocorticoid treatment with amino acid enteral nutrition and oligo antigenic diet. Because of recurrent disease relapses at any attempt of glucocorticoid withdrawal, azathioprine and cyclosporine treatments were also added. At 2 years of age he received total colectomy with ileostomy.