Abstract AB1130 – Figure 1

Conclusions: This is the second reported case of TNFRSF1A mosaicism in a patient with TRAPS, which was attributable to a *de novo* mosaic missense mutation in the TNFRSF1A gene. (c.265 T>C) p.Phe89Leu (F89L). Our results point to a late-onset mutational event at the level of a multipotent hematopoietic stem cell.

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AB1131 IL-33, A NOVEL CYTOKINE FOR FMF? HOW IS IT RELATED WITH DISEASE PATHOGENESIS?

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Background: Familial Mediterranean Fever (FMF) is an autosomal recessive inherited autoinflammatory disease characterised with unpredictable attacks of fever, polyserositis and arthritis. The disease is associated with MEFV gene mutation causing dysfunction of pyrin protein. This dysfunction of pyrin is related with aberrant production of proinflammatory cytokines, especially IL-1 β and IL-18. IL-33 is a novel proinflammatory cytokine that belongs to interleukin (IL)–1 superfamily. When released from epithelial, endothelial and fibroblasts, it binds to its specific receptor ST2 and induces the production of inflammatory cytokines. IL-33/ST2 pathway has been recently shown to be related with several rheumatological diseases such as rheumatoid arthritis, systemic lupus erythematosus.

Objectives: As it is well known that inhibition of IL-1 pathway is the cornerstone of FMF treatment, the aim of this study was to evaluate the role of IL-33, a member of IL-1 family, in the pathogenesis of FMF.

Methods: Seventy-six FMF patients and 30 sex-age matched healthy controls were enrolled in the study.

Results: The demographic data of FMF patients and healthy controls are demonstrated in Table 1. Serum IL-33 and its soluble receptor ST2 (sST2) were analysed with ELISA. There was no statistically significant difference between IL-33 and sST2 levels in FMF and control groups ($p=0.687$ and $p=0.054$, respectively) (table 1). FMF patients were grouped as active and inactive disease according to Autoinflammatory Disease Activity Index (AIDAI) for the past 31 days and ≥ 9 was accepted as active disease. The serum IL-33 and sST2 levels were similar in both active and inactive groups ($p=0.362$ and $p=0.706$, respectively). In active group, C-reactive protein and serum-amyloid A levels were significantly higher than inactive group. ($p=0.01$, $p=0.015$ respectively) (table 2).

Abstract AB1131 – Table 1. The table that shows the characteristics of FMF patients and healthy controls

	FMF (n=76)	Control (n=30)	p
Age (years)	33.8 $\pm$ 11.8	37.0 $\pm$ 8.4	0.123
Female, n (%)	56 (73.7)	18 (60)	0.167
IL-33	3.88 $\pm$ 2.04	3.71 $\pm$ 1.36	0.687
sST2	2756.8 $\pm$ 411.0	2828.0 $\pm$ 118.8	0.054

Abstract AB1131 – Table 2. The table that shows the characteristics of active and inactive FMF patients

	Active ²⁴	Inactive (52)	p
Age (years)	31.8 $\pm$ 10.8	34.8 $\pm$ 12.2	0.310
Female, n (%)	17 (70.8)	39(75)	0.701
IL-33	4.26 $\pm$ 2.73	3.70 $\pm$ 1.64	0.362
sST2	2730.4 $\pm$ 426.8	2769.0 $\pm$ 407.1	0.706
Attackno/year (IQR)	4 (5)	2 (4)	<0.001
AIDAI score(IQR)	16 (16)	0 (3)	<0.001
ESR	17.7 $\pm$ 12.1	12.8 $\pm$ 8.1	0.108
CRP	22.5 $\pm$ 31.3	4.4 $\pm$ 7.7	0.01
Fibrinogen	3.5 $\pm$ 1.3	3.6 $\pm$ 3.3	0.896
SAA	29.9 $\pm$ 41.7	5.4 $\pm$ 8.2	0.015

Conclusions: In this study, significant differences were not found in serum IL-33 and sST2 levels neither in FMF vs control nor active vs inactive FMF groups. This may be because of, unlike the other members of IL-1 superfamily, IL-33 mainly induces T helper (Th)2 immune responses. On the other hand, the pathogenesis of FMF is mainly dependent on Th17 cell activation and Th1 cell differentiation via IL-18 induction. As a result, it can be concluded that even if IL-33 is a component of IL-1 family, it has no role in the pathogenesis of FMF. As far as we know, this is the first study in the literature. Therefore, further studies with larger sample size are needed to confirm this result.

Disclosure of Interest: None declared

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AB1132 PANNICULITIS IN RHEUMATOLOGY PRACTICE: SPECIFIC FEATURES OF CLINICAL COURSE AND OUTCOMES

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Background: Panniculitis (Pn) is a heterogenic group of inflammatory diseases with predominant involvement of subcutaneous adipose tissue and may occasionally be seen in clinical practice by many specialists. Although, fever, skin symptoms and joints involvement alongside with pronounced rise of acute phase inflammation reactants are the reasons for referral to a rheumatologist. At the same time absence of clear diagnostic algorithm would result in delayed diagnosis and, consequently, inadequate treatment.

Objectives: To assess clinical course and clinical outcomes of panniculitis in current rheumatology practice.

Methods: The study included 209 pts on the record at VA Nasonova Research Institute of Rheumatology during 2009–2016 yy. (185 females and 24 males, aged 17–80 years) with referral diagnosis “Erythema nodosum. Non-differentiated panniculitis» and disease duration from 1 week to 25 years. Patients' assessment included general clinical examination, serological and immunological tests, histological and immunohistochemical analyses, chest CT scan, Doppler ultrasonography of the lower extremity veins, and tuberculin skin test. Outcomes were evaluated in 1–6 years.

Results: Secondary to underlying non- rheumatic condition Pn was identified in 23 pts. The most prevalent Pn types in remaining 186 cases were: erythema nodosum (EN) (121pts), lipodermatosclerosis (LDS)³⁸ and Weber-Christian disease (WCD).¹⁸ Symmetrical distribution of nodules over upper and lower extremities (ULE) was characteristic for 93% of all EN cases. In LDS populations 68% cases had increased mean body mass index (BMI), 79% – chronic venous insufficiency (CVI), 60% – asymmetric distribution of lesions, mostly over medial leg (92%). In WCD patients the nodules were covering all ULE surfaces, and in 14 nodules were found on the trunk. The three Pn types had certain differences in the clinical course: high clinical and lab activity was documented in *Löfgren syndrome* and *WCD* pts. Asymmetric distribution of nodules on the legs was characteristic for LDS, nodules on the trunk were specific for WCD. The highest recurrence rate was documented in WCD pts (39,7 per 100 patient-years), the lowest—in *Löfgren*

syndrome pts (15,3 per 100 patient-years). The probability of EN recurrence in *Löfgren syndrome pts* was significantly higher in subjects older than 40 y (OR 3,81; $p=0,03$), in subjects with late (≥ 3 months from EN onset) initiation of treatment (OR 8,94; $p=0,0008$) and in subjects with indurations >5 cm in size (OR 3,65; $p=0,03$). The probability of LDS recurrence was significantly higher in pts with confluent nodules, forming conglomerate masses (OR 4,33; $p=0,037$), and pts taking hydroxychloroquine at ≤ 200 mg/day during ≥ 6 months (OR 5,25; $p=0,019$).

Conclusions: Comprehensive examination is needed to identify the clinical type of Pn. Symmetrical involvement of all extremities is characteristic for EN in young subjects. Asymmetric nodular rash over lower extremities in subjects with abnormal BMI and CVI is specific for LDS. CWD usually presents with nodular rash on the trunk. Identified risk factor for EN and LDS recurrence should be taken into consideration while writing a treatment plan.

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AB1133 ROLE OF THE RHEUMATOLOGIST IN A REGIONAL REFERENCE HAEMOPHILIA UNIT

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Background: Haemophilia is an X-linked hereditary bleeding disorder caused by deficiency in coagulation factor VIII (FVIII), in haemophilia A (HA), and factor IX in haemophilia B (HB).

They are classified as severe, moderate or mild, depending on the level of coagulation factor deficiency. Men are affected clinically by the disease, and women, who are carriers, usually remain asymptomatic.

HA is more common than HB (from 80% to 85% of all cases).

Their bleeding complications primarily affect the musculoskeletal system. Hemarthrosis is the major hemophilia-related complication, responsible for a particularly debilitating chronic arthropathy, in the long term, affecting mainly the load joints (knees, ankles and elbows).

In addition to clotting factor concentrates, usually prescribed by the haematologist, The management of acute hemarthrosis and chronic arthropathy requires a close collaboration with rheumatologists. This collaboration is the key to effectively preventing hemarthrosis, managing acute joint bleeding episodes, assessing joint function, and actively treating chronic arthropathy.

Objectives: To analyse the clinical characteristics, extent of joint involvement and associated comorbidity of a cohort of patients with hemophilic arthropathy.

Methods: This is a retrospective study, carried out in the Haemophilia Unit of our hospital (regional reference), in patients with moderate to severe haemophilia A and B, with hemophilic arthropathy, seen in consultation with episodes of joint bleeding (2007–2017). Severity of haemophilia was defined based on determined by the percentage of FC activity (VIII and IX), moderate from 1% to 5%, severe $<1\%$. The number of episodes of hemarthrosis was collected in the 3 months before and after the radioisotopic synoviorthesis (intra-articular injection of a colloidal suspension of particles marked with a radioisotope, whose objective is the destruction of the synovial membrane).

Results: We included 88 patients (87 men and 1 symptomatic carrier woman with decreased levels of factor VIII), mean age 31 ± 17 years. HA (severe 56%, moderate 26%), HB (severe 14%, moderate 1%). The target joint: knee 51%, followed by ankle 26%, elbow 13% and other 7% (5 shoulders and 2 wrists). In 61 patients, magnetic resonance imaging (MRI) was performed: synovial hypertrophy 9%, hemosiderin deposits (in acute stage of joint bleeding) 2% and structural alteration (erosions and subchondral cysts, loss of focal cartilage) 68%. A radioisotope synoviorthesis was made to 18 patients: 12 with sulfide 186 Re colloidal (5 ankles, 4 knees, 2 elbows) and 6 with 90 Y colloidal citrate (4 knees, 3 ankles), having a decrease of 74% (range 59%–100%) in the number of hemarthrosis in the 3 subsequent months. Total knee replacement was needed in 13% of the patients (7 with HCV liver disease and in 6 HCV liver disease and coexistence with HIV). They have infection due to HCV 33%, HIV 25% and HBV 6%.

Conclusions: This study highlights the extent of joint damage in haemophilic patients as well as the high comorbidity of HCV and HIV infections.

The experience of a monographic Haemophilia consultation, with the participation of different specialties (being fundamental the rheumatologist), benefits the multi-disciplinary approach of these patients, being the results obtained in our series concordant with the described in the literature.

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AB1134 DETERMINING FACTORS OF SEVERITY IN HEMOPHILIC ARTHROPATHY

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Background: In patients with haemophilia, the development of inhibitors to factor VIII/IX (Haemophilia A and B, HA/HB), prevents adequate replacement therapy and results in increased risk of serious bleeding episodes, poor control of joint bleeding, and progressive, debilitating joint disease.

Objectives: To describe, according to the Arnold-Hilgartner scale (AHRS), the radiological findings in a cohort of hemophilic arthropathy (HArth) patients and to analyse the relationship that may exist between the degree of joint involvement and HA/HB, severity, age and presence or absence of inhibitor.

Methods: This is a retrospective study, carried out in the Haemophilia Unit of our hospital, in patients with HArth (2007–2017). Severity of haemophilia: percentage of coagulation factor (CF) activity, moderate (1%–5%) and severe $<1\%$. The AHRS includes 5 levels.

For the study of the association of the type and degree of haemophilia; and the presence of inhibitor, with the level in the AHRS, a linear model was used. The significance in this regard of the linear contrasts of interest was studied using F tests, defining the first species error at 0.05.

Results: We included 88 patients. Characteristics of the patients in the attached chart. No significant association was detected between the type and severity of haemophilia with the development of inhibitor.

The results of the linear model only showed association ($p=0.01$) between the severity of haemophilia and AHRS, patients with moderate haemophilia presented a least square mean for the AHRS of 2.6 (0.3), whereas the serious ones had a value of 3.4 (0.2). The least squared means for patients with HA and HB were 2.9 (0.2) and 3.1 (0.4) respectively, the contrast did not reach statistical significance ($p>0.1$), and the same occurred between patients who had generated or not inhibitor 2.8 (0.2) Vs 3.1 (0.3). Apart from the severity of haemophilia, the other factor that showed a significant and significant effect ($p<0.001$) on the AHRS values was age. The estimated value for the regression coefficient of age on the radiological status was 0.05 (0.009).

Abstract AB1134 – Table 1

Type of Haemophilia	
Haemophilia A n (%)	73 (82%)
Haemophilia B n (%)	14 (15%)
Severity of Haemophilia	
Haemophilia A severe n (%)	50 (56%)
Haemophilia A moderate n (%)	23 (26%)
Haemophilia B severe n (%)	13 (14%)
Haemophilia B moderate n (%)	1 (1%)
Age m (SD)	31 (17)
Development of inhibitors to factor VIII/IX n (%)	16 (18%)
Haemophilia A severe with inhibitors n (%)	10 (11%)
Haemophilia A moderate with inhibitors n (%)	3 (3%)
Haemophilia B severe with inhibitors n (%)	3 (3%)
AHRS scale 1 n (%)	18 (20%)
AHRS scale 2 n (%)	17 (19%)
AHRS scale 3 n (%)	18 (20%)
AHRS scale 4 n (%)	15 (17%)
AHRS scale 5 n (%)	19 (21%)

Conclusions: Contrary to what has been observed in other studies, in our cohort it does not seem that the presence of inhibitor or the type of haemophilia has a negative effect on the severity of the radiological findings. The age and severity of haemophilia do seem to influence the radiological stage.

Disclosure of Interest: None declared

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AB1135 CARDIAC MAGNETIC RESONANCE FINDINGS IN PATIENTS WITH BIOPSY-PROVEN VIRUS-NEGATIVE LYMPHOCYTIC MYOCARDITIS

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Background: Cardiac magnetic resonance (CMR) is considered to be useful for non-invasive myocarditis diagnosis. Lake Louise Criteria (LLC) has been proved to have moderate accuracy in the diagnosis of acute or chronic myocarditis¹.

Objectives: to describe the CMR findings in patients with virus-negative lymphocytic myocarditis (VNLN) from a large monocentric Italian cohort.