

heterozygotes, 1 homozygous patient); I591T (3 heterozygotes). Some of them had 2 or more mutations in association. All the patients were treated with colchicine with a complete (95%) or partial response to the treatment. None of the patients developed amyloidosis. Three patients from unrelated families, had a vasculitis (2 Kawasaki Disease; 1 Schoenlein-Henoch Purpura) and all presented the same association: P369S and R408Q.

**Conclusion:** This finding verifies the importance of molecular diagnosis and detailed sequencing which is recommended to perform in particular for the countries with a high risk of FMF.

In several instances, family studies provided the prevalence of a single mutation in patients experiencing a pathogenic effect, with molecular evidence for pseudodominant transmission. We evidenced a variable clinical and serological pattern between patients in the same family; the genetic study was in fact extended to parents and brothers of the index case, with the recommendation to dose Serum amyloid A (SAA), blood pressure and evaluate a urine analysis to exclude proteinuria.

The M694V homozygous and heterozygous genotype was found to be associated with a higher prevalence of amyloidosis and arthritis and higher levels of SAA. The parents of our patients with M694V mutation have more severe clinical manifestations and a lower response to colchicine.

Further studies are needed to highlight generational differences of clinical spectrum and SAA levels in FMF patients of the same family, carrying the same mutation.

**Disclosure of Interest**

None Declared.

**P188**

**Anti-IL1 in patients with low penetrance mutations for autoinflammatory diseases: tuscan and sicilian case series from paediatric to adult age**

Maria Cristina Maggio<sup>1</sup>, Luca Cantarini<sup>2</sup>, Giovanni Corsello<sup>1</sup>, Umberto Corpora<sup>3</sup>, Rolando Cimaz<sup>4</sup>

<sup>1</sup>University Department Pro.Sa.M.I. "G. D'Alessandro", University of Palermo, Palermo, Italy; <sup>2</sup>Research Center of Systemic Autoinflammatory Diseases and Behçet's Disease Clinic, Department of Medical Sciences, Surgery and Neurosciences, University of Siena, Siena, Italy; <sup>3</sup>University Department Pro.Sa.M.I. "G. D'Alessandro", University of Palermo, Palermo, Italy; <sup>4</sup>Pediatric Rheumatology Unit, Neurofarba Department, AOU Meyer, University of Florence, Florence, Italy

**Correspondence:** Maria Cristina Maggio

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**Introduction:** Patients with low penetrance mutations for Autoinflammatory syndromes (AID) can have severe clinical manifestations, which require to be treated with biological drugs anti-IL-1.

**Objectives:** To evaluate the response of AID to treatment with the recombinant human IL-1 receptor antagonist anakinra or with the anti-IL-1b.

**Methods:** We enrolled from 3 centers (U.O. of Rheumatology, University Hospital "S. Maria Le Scotte", Siena; S.O.D.C. of Paediatric Rheumatology, "A. Meyer" Hospital, Florence and U.O. of Paediatric Clinic, Children Hospital "G. Di Cristina", Palermo) 26 patients with SAI and low penetrance mutations, with age: 0.8-58 years (11 M, 15 F; age:4-62 years; medium age of paediatric patients: 11.2 years). The symptoms started in paediatric age in all the patients; however adult patients received the diagnosis in adult age.

**Results:** All the patients (9 CAPS, 10 TRAPS, 2 HIDS, 2 FMF, 3 sJIA) received anti-IL-1b drugs (anakinra or canakinumab). The subjects kept a diary of symptoms at the diagnosis and at the outset, and underwent clinical and laboratory assessments, including measurement of the SAA, ESR, CRP, blood count, urinalysis.

At the outset, the 84.6% showed recurrent episodes of fever, variously associated with: rash (61.5%), abdominal pain (50%), arthralgia and/or myalgia (88%), arthritis (46%). All the patients, before starting anti-IL-1b drugs, were treated with NSAIDs, steroids, DMARDs, colchicine with a poor control of the disease. The 30.7% associate the anti-IL-1b to one or more of other drugs. The 57.7% (38.5% between children, 19.2% between adults) showed a complete remission; the 19.2% incomplete, the 23.1% did not respond. SAA was increased in 88.5% (M: 155,86; n.v. < 6,4 mg/l), reduced

in 58%. CRP was increased before anti-IL-1b drug in the 50%, with a normal value in the 92% after the drug was started. ESR was increased in the 69.2%, with a normal value in the 42.3%.

Proteinuria was detected in the 8% before the anti-IL-1b drug was started and was in the normal range after they was treated with the biological drug.

In children, prevalent clinical manifestations were abdominal pain and arthritis; in adults thorax pain and pericarditis were more frequent.

**Conclusion:** The clinical features of the AID were correlated with age, also in patients with low penetrance mutations: some manifestations were more frequent in adults, others in childhood. The remarkable response on clinical and haematological parameters (76.9% of all the patients) to anakinra or canakinumab suggests that IL-1 $\beta$  has a fundamental role in the pathogenesis of inflammation associated with low penetrance mutations as well. In paediatric age, IL-1 blockade higher efficacy was probably linked to a more severe clinical phenotype.

**Disclosure of Interest**

None Declared.

**P189**

**Genetic and clinical profile of a sicilian population with R92Q mutation**

Maria Cristina Maggio<sup>1</sup>, Carmelo Fabiano<sup>2</sup>, Giuliana Vitaliti<sup>1</sup>, Giovanni Corsello<sup>1</sup>

<sup>1</sup>University Department Pro.Sa.M.I. "G. D'Alessandro", University of Palermo, Palermo, Italy; <sup>2</sup>Molecular Genetic Laboratory, Haematology and Rare Diseases of blood and haematopoietic organs, Ospedali Riuniti Villa Sofia-Cervello, Palermo, Italy

**Correspondence:** Maria Cristina Maggio

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**Introduction:** Gene TNFRSF1A mutation is linked to TRAPS, autosomal dominant Autoinflammatory Disease (AID) with recurrent attacks of fever (2-3 weeks long), abdominal pain, vomiting, serositis, arthralgia and/or arthritis, myalgia, fasciitis, rash. The disease starts precociously and amyloidosis is reported in the 25% of the patients. Patients carrying the mutation R92Q usually show a mild clinical phenotype, with an extreme interindividual variability. Arthralgia and serositis are frequently less severe, however oral ulcers and pharyngitis are recurrent.

**Objectives:** We studied the clinical and biochemical impact of the mutation R92Q in our population and the treatment outcome in all the patients with clinical relevant symptoms.

**Methods:** We followed 15 patients (6 M and 9 F), 11 children and 4 adults, carrying the R92Q heterozygous mutation of the gene TNFRSF1A. The diagnosis of children were done at the age of 4-14 years, o the adults was performed following the sons diagnosis. SAA levels were significantly high in 8/11 children and in 2/4 adults.

**Results:** All the symptomatic patients were treated with NSAIDs, steroids, colchicine with a variable control of the disease. The colchicine was not sufficient in 4/5 patients and 2 of them were treated with the anti-IL-1  $\beta$  biological drug canakinumab.

**Conclusion:** Functional studies performed on R92Q evidenced a changed conformational structure vs. the wild type.

Our patients showed polymorphic clinical features: some of them are asymptomatic, other record different symptoms with an intrafamilial variability. In paediatric age, the clinical phenotype is more severe also in correlation with the symptoms of parents carrying the same mutation. We stress the data that all our patients underwent the genetic study because they recorded symptoms linked to AID.

**Disclosure of Interest**

None Declared.

**P190**

**A paediatric FMF patient with recurrent priapism during attacks**

Balahan Makay, Nesrin Gülez  
Behçet Uz Children s Hospital, Izmir, Turkey

**Correspondence:** Balahan Makay

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