were statistically significant differences in 26 conditions (Figure), with the most striking differences comparing the GP cohort with the JIA cohort in ankylosing spondylitis (0.001% vs 0.98%), psoriatic arthritis (0.01% vs 4.44%), systemic sclerosis/scleroderma (0.004% vs 0.6%), uveitis (0.07% vs 7.82%) and sarcoidosis (0.003% vs 0.3%). Only alopecia areata was more frequent in the GP cohort than in patients with JIA (4.5% vs 0.2%).

Conclusion: Patients with JIA have more pronounced autoimmunity prevalence than the general paediatric population, especially for ankylosing spondylitis, psoriatic arthritis, uveitis, systemic sclerosis/scleroderma and sarcoidosis.

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SAT0490   **IL-1 BLOCKADE IN PEDIATRIC RECURRENT PERICARDITIS: A MULTICENTRIC RETROSPECTIVE STUDY ON THE ITALIAN COHORT**

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Background: Acute pericarditis is an inflammatory condition causing the occurrence of pericardial effusion. In a third of patients, the disease is recurrent. Most of the cases are idiopathic or occur after a pericardial procedure. First line treatment of idiopathic pericarditis consists in NSAIDs and colchicine; glucocorticoids represent the second line treatment in resistant or intolerant cases. The use of different biologics and immunosoppressant has been reported, with variable responses. A recent clinical trial has enlightened the effectiveness of anakinra in patients with colchicine-resistant recurrent pericarditis.

Objectives: To describe the clinical characteristics and response to treatment in a cohort of paediatric patients with recurrent pericarditis treated with IL inhibitors.

Methods: Pediatric patients with recurrent pericarditis followed at 19 Italian centers of paediatric rheumatology or cardiology and treated with IL1 inhibitors were included in the study. Demographic, clinical and response to treatment data were retrospectively collected.

Results: 55 patients were included in the study. The mean age at onset of the first episode of pericarditis was 12.53 years. The mean number of relapses of pericarditis before the beginning of treatment with IL1 inhibitors was of 3.4. 53 out of 55 patients had previously received treatment with NSAIDS and 44 colchicine. 44 patients received steroidal treatment: 2 of them displayed a steroidal-resistance and 39 steroidal-dependence with reoccurrence of the symptoms following any attempt to reduce or withdraw this treatment.

Anakinra (mean dosage of 1.67 mg/kg/day) was used as first Il-1 inhibitor in 54 of the 55 patients, Canakinumab (150 mg every 4 weeks) in one. 53 out of 54 patients treated with anakinra displayed a complete clinical response to treatment within a mean of 2 days: NSAIDs, glucocorticoids and colchicine were withdraw in 25 out of 26, 31 out of 35 and 15 out of 32 patients respectively. 50 of 54 patients displayed a complete response; among these, three were switched to Canakinumab, 17 patients continued treatment at the same dosage while in 30 patients a reduction of treatment was attempted. 12 patients presented, during anakinra tapering, a disease flare, promptly resolved after an increasing of the dosage. The remaining 18 patients did not present any flare despite the reduction of the drug. Anakinra was withdrawn in 16 patients, with recurrence of the symptoms in 11 (9 restarted anakinra, 2 were treated with glucocorticoids and colchicine, with good response).

5 patients were treated with Canakinumab: 1 as first anti-IL1 drug, 4 were switched from anakinra (two for poor compliance, one for side effects and one for incomplete control of the disease). 2 out of five patients had a complete control of the diseases, 2 patients discontinued the treatment because of inefficacy and 1 patient required low dose of glucocorticoids to control the disease.

At last follow-up 34 patients were on anakinra, 7 on anakinra and colchicine, 2 on canakinumab, 1 on canakinumab plus colchicine and NSAIDs. In 9 patients all treatments were withdrawn for complete control of the disease.

Conclusion: This study confirm the effectiveness of IL-1 blockade in paediatric patients with recurrent pericarditis. However, most of the patients require prolonged treatment to maintain clinical remission. Moreover, in our cohort of patients the rate of response was higher for anakinra then for canakinumab, suggesting a possible role of IL1α in the pathogenesis of this condition.

SAT0491   **METABOLIC DISORDERS IN CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS**

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Background: The urgency of identifying metabolic disorders causing the formation and complication of rheumatic diseases is associated with the difficulties of early and differential diagnosis, and often unfavorable outcomes with a high incidence of patient disability.

Objectives: The purpose of the study is to study the lipid, lipoprotein spectrum of blood serum, lipid peroxidation and antioxidant protection in children with juvenile idiopathic arthritis (JIA).

Methods: On the state of lipid metabolism was evaluated by the study content of total lipids, total cholesterol, triglycerides, lipoprotein spectrum of blood serum apolipoprotein atherosclerotic and antiatherogenic lipoproteins (apoB, apoA, apoE), activity of lipoprotein lipase, primary and secondary products of lipid peroxidation (LPO) and the content of antioxidant ability of water - and fat-soluble antioxidants.

Results: 147 children with juvenile idiopathic arthritis (JIA) aged from 2 to 17 years were examined. The control group consisted of 50 healthy children. In children with JIA, a significant increase in the content of triglycerides, total cholesterol (p<0.001) and a decrease in cholesterol-HDL levels (p<0.05) in comparison with the same indicators in the control group was established. The mean concentrations of cholesterol-HDL significantly decreased with an increase in the degree of disease activity: 1.15 [0.98; 1.3] mmol/l with minimal activity, 1.02 [0.87; 1.17] mmol/l with moderate activity and 0.94 [0.78; 1.01] mmol/l with a high activity of the disease.