C-reactive protein median was 45 mg/l.

Feet and hands radiographies were performed for seventeen patients. Five patients had carpalitis and two patients had tarsitis. Two patients had unilateral sacroiliitis.

Hand and wrist US were performed for twelve patients. Ten patients had joint damage. We found 7 radiocarpal and intercarpal synovitis, including 5 with a positive power Doppler (PD) signal, in 5 patients. US showed one distal radio-ulnar synovitis with no PD signal. Four patients had metacarpophalangeal synovitis including 3 with a positive PD signal. Proximal inter-phalangeal synovitis with no PD signal was found for one patient. There was no involvement of distal interphalangeal joint. Four patients had unilateral tenosynovitis including 2 with a positive PD signal. Feet US were done for ten patients. US showed joint damage for six patients. Three patients had metatarsophalangeal synovitis including one with a positive PD signal. Ankle synovitis with no PD signal was found for two patients. US showed one tarsal synovitis with a positive PD signal. Two patients had tenosynovitis including one with a positive PD signal.

US showed joint abnormalities in 6 patients with normal X-rays.

Hands joints MRI were performed for three patients. Carpalitis was found for one patient. One patient had radio-ulnar synovitis with tenosynovitis. One patient had radio-ulnar synovitis with metacarpophalangeal synovitis. Six patients had one or two erosions on feet or hands: 2 on radiographs, 3 on US and 3 on MRI (including one shown by US).

Conclusion: Clinical and radiological (radiograph and US) joints manifestation in WD affect large joints. However, small joints can also be affected. Axial involvement is rare. WD can affect both joints and tendons. Erosions are rare and never exceed 2 per patient in our series. US can show joint damage whereas radiograph is normal. US should be systematic for patient with WD in order to improve knowledge about this disease and to distinguish it from autoimmune arthritis.

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SAT0454 RHEUMATIC FEVER IN A TERTIARY MEDICAL CENTER – 25 YEARS OF FOLLOW-UP

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Background: Rheumatic Fever (RF) occurs after a pharyngeal infection caused by group A-B-hemolytic streptococci, and is often classified as a connective tissue disease. RF mostly affect children and it's diagnosis is determined using the Jones criteria.

The incidence of **rheumatic fever** and **carditis** in relation to the number of hospitalized patients

Its principal clinical significance is causing carditis at the acute phase of the disease, and valvular impairment, leading to a significant hemodynamic disturbance, as a late sequela.

Despite being a completely preventable disease, Rheumatic fever continues to be the most common cause of acquired heart disease among children in developing countries. In developed countries, a sharp decline in ARF was seen in the last decades.

Objectives: To examine the number of cases of Rheumatic fever in Schneider Children's medical center, and to find whether it has declined during the years of its existence. In addition, to characterize the patient population during that period, determine the clinical characteristics of ARF, It's risk factors and assess the course of the disease and it's treatment. In addition, we will address the relapse rates, with an emphasis on cardiac relapses, with a correlation to preventive treatment.

Methods: A retrospective cohort study was conducted, by collecting data from medical records of patients with rheumatic fever who were admitted to the Schneider Medical Center from 1993 to 2017. A database was built based on these medical records in order to assess the incidence of rheumatic fever and rheumatic heart disease, and the relapse rates, by use of descriptive and survival analysis.

Results: A 402 cases with relevant diagnostic codes were examined during the follow-up period, of which 307 patients met the inclusion criteria. During the acute phase, 197 of the patients (64%) presented with arthritis, 159 patients (52%) with carditis, 47 patients (15%) with chorea, 16 patients (5.2%) with erythema marginatum, and 2 patients (0.7%) with subcutaneous nodules. Carditis was found in higher rates among Jewish patients than among Arabs. 31 patients (19.5%) developed severe carditis, 21 patients (13.2%) of whom developed heart failure signs, 5 were hospitalized in intensive care, and one died. There was a decrease in incidence of rheumatic fever and rheumatic heart disease during the study period. Thirty-two patients (12% of all patients with rheumatic fever) developed a relapse of the disease and 11 of whom (4 percent of all patients) developed a cardiac relapse.

Median follow-up time was 49 months, and relapse rate was 13.9% after 5 years of follow-up. 15% of the patients who received oral prophylaxis experienced relapse, compared to 9% of those who received intramuscular injection therapy.

The rate of recurrence among all patients with rheumatic fever was 2.8% after 2 years of follow-up, and about 7% after 8 years of follow-up. 10 (90.9%) of the 11 patients with cardiac recurrence were present with carditis during the initial disease, with 7 of them (63.6% of patients with cardiac recurrence) having isolated carditis and 3 of them had a combined involvement of arthritis and carditis (27.3% of Cardiac relapses). Only in one case (9.1% of patients with cardiac recurrence) was an isolated occurrence of arthritis in the initial presentation.

It was found that chorea is more common among females.

Conclusion: Despite the reduction in incidence of rheumatic fever and rheumatic heart disease during the study period, the disease remains a significant cause of general and cardiac morbidity among children despite being completely preventable, therefore, It should remain in the mind of every doctor, pediatricians in particular.

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SAT0455 A QUALITY IMPROVEMENT INTERVENTION TO INCREASE INFLUENZA AND PNEUMOCOCCAL VACCINATION RATES IN IMMUNOSUPPRESSED INFLAMMATORY ARTHRITIS PATIENTS

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Background: Disease-related immune dysfunction and medications cause immunosuppression in inflammatory arthritis (IA)(1). EULAR and Centers for Disease Control (CDC) recommend influenza and 23-valent pneumococcal polysaccharide (PPSV23) vaccination. Previous studies show sub-optimal coverage.

Objectives: To increase influenza (annual) and PPSV23 (5 yearly) vaccination in immunosuppressed IA patients through a multifaceted quality improvement intervention.

Methods: Between April and September 2017, IA patients completed an anonymous paper 23 question worksheet recording demographics, medical history, medications, vaccination knowledge, status and barriers. All patients on oral steroids, bDMARDs or immunosuppressant cDMARDs were included.