ASSessment of Articular and ExtrA-ARTICULAR Damage in Patients with Juvenile Idiopathic Arthritis

A. Faza1, N. Ben Salem1, S. Miladi1, H. Boussa1, L. Souabni1, K. Gueniche1, S. Chekili1, S. Kassab1, K. Ben Abdelghani1, A. Laatari1, 1Hôpital Mongi Slim, Rheumatology, Marsa, Tunisia

Background: Juvenile idiopathic arthritis (JIA) affects patients' well-being and can lead to disability and long-term damage. Evaluating damage in patients can be beneficial to make therapeutic decisions and take rehabilitation measures.

Objectives: To assess articular and extra-articular damage in patients with JIA by the use of the Juvenile Arthritis Damage Index (JADI) and to identify variables that correlate with disease damage.

Methods: We conducted a cross-sectional study among patients with JIA who met the ILAR classification criteria and had a disease duration more than 12 months. Early clinical data was obtained from medical files. It included socio-demographic features, biological and radiological parameters, subtype of JIA, disease duration and ongoing treatments. Damage was assessed in the last clinical visit using articular and extra-articular damage index1 (JADI-A and JADI-E).

Results: Thirty-two patients were enrolled in this study with a mean age of 23.8 ±11.6 years. Sex ratio was 0.8 (12 males and 20 females). The mean age of disease onset was 8.3 years [3-15], and the mean disease duration was 183.7 months [12-624]. At the last clinical examination, 71.9% of patients had joint damage with a mean JADI-A score of 5.09 ±5.4 and 40.6% of patients had extra-articular damage with a mean JADI-E score of 0.75±1.2. The most affected joints were: the elbows (43.8%), the hips (37.5%) and the wrists (25%). Extra articular damage was mainly: a growth failure (25%), osteoporosis (18.8%) and ocular damage (12.5%). Patients with polyarticular arthritis without rheumatoid factor had the highest JADI-A score with a mean of 7.83 while patients with systemic arthritis had the highest JADI-E score with a mean of 3. Mean JADI-A score was significantly different between patients who received corticosteroids and those who did not receive them (8.5 Versus 3.4, p<0.004). Damage scores correlated with disease duration (p<0.001 for JADI-A score and p=0.034 for JADI-E score). Damage scores were not significantly different between different classes of treatment (conventional dmards and biologic dmards).

Conclusion: Articular damage is frequent in patients with JIA. It is higher for patients on corticosteroids. Articular and extra articular damage correlate with disease duration, but they were not significantly different between classes of treatment (conventional dmards and biologic dmards).

REFERENCES:

Disclosure of Interests: None declared
DOl: 10.1136/annrheumdis-2022-eular.2875

CONTRIBUTion of imaging in the diagnosis of ATRAumatic Hip

M. Yasmine1, H. Ferjani1, F. Taboubi1, W. Triki1, D. Ben Nessib1, K. Maatallah1, D. Kaffel1, W. Hamdi1, 1Kassab Institute of Orthopedics, Rheumatology, Tunis, Tunisia

Background: Joint pain of the hip in children and adolescents is one of the most frequent symptoms seen by pediatricians, orthopedists, and pediatric rheumatologists, with an annual incidence of 148,1/100 000 [1]. The identification of an etiology for articular hip pain is challenging. Even though imaging findings are often various and nonspecific, they are necessary for an accurate diagnosis.

Objectives: The main goal of this study is to investigate the contribution of the different imaging techniques in the diagnosis of the hip pain in children.

Methods: We conducted a retrospective study including children and adolescents with atraumatic hip pain recruited from the Kassab Institute of Orthopedics. Transcribed data included age, sex, and the etiology of the hip disease. We also recorded different imaging techniques performed for the diagnosis: plain radiography, ultrasound (US), computed tomography (CT) as well as magnetic resonance imaging (MRI).

Results: The study included 61 patients. There was a male predominance (53% boys versus 47% girls) with a sex ratio of 1.45. The mean age at diagnosis was 9.9 years [1-16]. The mean disease duration was eight months [0.1-156]. Hip disorders were distributed as follows: Legg-Calvé-Perthes disease (n=3), epiphysiolysis of the femoral head (n=30), transient synovitis of the hip (n=7), septic hip (n=10), tumor (n=4), hip dislocation (n=8), hip dysplasia (n=4), juvenile idiopathic arthritis with coxitis (n=15). The hip X-ray was abnormal in 75.6% of cases. The hip US was performed in 34.2% of the patients and showed abnormal findings in most of the cases (98.5%). US findings were as follows: joint effusion (n=26), synovial thickening (n=18), synovitis (n=12), and a positive Doppler signal (n=7). Seven patients underwent pelvic CT scans. The main findings were joint effusion (n=2), synovial thickening (n=1), and hip dysplasia (n=4). MRI of the hip was carried out in 23 children and was contributive in 91.3% of the cases. The main findings were as follows: joint effusion (n=12), synovitis (n=10), bone marrow edema (n=8), synovial thickening (n=7), nidus (n=3) and tumoral process (n=1).

Conclusion: Our study showed that hip X-ray and US are the first-line imaging modalities in an atraumatic hip diagnosis. However, in other cases, further investigations may be needed to make an early diagnosis and avoid adverse outcomes.

REFERENCES:

Disclosure of Interests: None declared

IMpact of overweight and obesity on hip involvement in juvenile idiopathic arthritis

H. Ferjani1, M. Yasmine1, H. Affes2, K. Maatallah1, W. Triki1, D. Ben Nessib1, D. Kaffel1, M. Jenzri1, W. Hamdi1, 1Kassab Institute of Orthopedics, Rheumatology, Tunis, Tunisia; 2Kassab Institute of Orthopedics, Orthopediatrics, Tunis, Tunisia

Background: The prevalence of obesity among children is on the rise, becoming a worldwide epidemic. The overweight is also associated with mechanical stress in the weight-bearing joint especially in the hip joint. Previous studies showed that increased Body mass index was a predicting factor of a poor outcomes [1].

Objectives: In this regard, we proposed to evaluate the effect of obesity on hip involvement in JIA patients.

Methods: We conducted a cross-sectional study including children with JIA according to the International League of Associations for Rheumatology (ILARI). Transcribed data included age, sex and the characteristics of the disease (sub-type of JIA, disease duration). Data on hip involvement was also collected. Weight and height of each patient was recorded. The body mass index (BMI) was calculated (Kg/m²). We compared these parameters between two groups: G1: presence of coxitis and G2: absence of coxitis.

Results: The study included 62 patients with a male predominance: sex ratio was 2.3. The mean age of onset of the disease was 11.4 years [3-16]. The frequency of each JIA subset was as follows: polyarticular with rheumatoid factor (n=2), polyarticular without rheumatoid factor (n=4), systemic (n=1), enthesitis-related arthritis (n=44), oligoarthritis (n=8), psoriatic arthritis (n=3). Hip involvement was reported in 71 % of cases and was bilateral in 81% of patients. The mean weight (Kg) and height (meter) was similar between the two groups (57.4 in G1 vs 53.6 in G2, p=0.496) and (1.61 in G1 vs 1.58 in G2, p=0.483) respectively. The prevalence of overweight patients was higher in G1 than G2 without reaching a statistically significant correlation (23% vs 12.5%, p=0.518). Similarly, there was no statistically significant correlation between the body mass index (Kg/m²) and coxitis (22.2 vs 21, p=0.45). Moreover, a higher BMI was not associated with a limited range of motion as well as hip replacement (p=0.7, p=0.1 respectively).

Conclusion: Our study showed that BMI did not impact hip involvement in juvenile idiopathic arthritis patients. As obesity confers an additional health risk, addressing this co-morbidity should be a health priority in these patients.

REFERENCES:

Disclosure of Interests: None declared

Tofacitinib is a safe and effective treatment option for juvenile idiopathic arthritis

N. Prabu1, V. Peetipparan2, G. Anand1, S. Ram1, A. Kumar1, 1Sakthi Rheumatology Centre Pvt Ltd, Rheumatology, Coimbatore, India; 2PGS Institute of Medical Sciences & Research, General Medicine, Coimbatore, India

Background: The management of juvenile idiopathic arthritis(JIA) is often constrained by the limited number of oral drugs available. Whether JAK inhibitors would add a much needed therapeutic armamentarium in this regard needs to be explored.

Objectives: To assess the safety and efficacy of tofacitinib in juvenile idiopathic arthritis (JIA) patient who were prescribed during the period January 2021 to December 2021.

Methods: It’s a retrospective study of JIA patients who were prescribed tofacitinib during the period Jan 21 to Dec 21 with minimum of 3 months’ follow-up after prescribing tofacitinib. The demographics,details of medications,investigations parameters and any adverse events were noted.
AB1251
LATE ONSET PRIMARY HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS IN AN INDIAN ADOLESCENT BOY DURING A PEAK OF POST COVID-19 MULTISYSTEM INFLAMMATORY SYNDROME
D. B. Pandya1,2, Dev Paediatric Rheumatology & Immunology Center, Pediatric, RAJKOT, India

Background: Familial Hemophagocytic lymphohistiocytosis (FHL) categorized as FHHL (PRF1), FHL3 (UNC13D), FHL1 (STX11), and FHL5 (STXB2) encoding for Perforin, Munc13-4, Syntaxin11, and Syntaxin binding protein 2, respectively. There is limited information available about the clinical and mutational spectrum of FHL patients in Indian population.

Objectives: To delineate clinical and laboratory features of late onset familial Hemophagocytic Lymphohistiocytosis.

Methods: A 12-years-old well nourished sick looking boy, born to a non-consanguineous parents with normal birth, development and immunization history with uneventful past presented to us with 6 days history of high fever, cough, breathing difficulty and severe headache. He had occasional vomiting, abdominal pain, polyarthralgia & chest pain from last 10 days. His vitals were normal. Examination revealed faint macular rash all over the body, pallor, icterus and hepatosplenomegaly. Musculoskeletal examination was unremarkable. Lab evaluation revealed HB 8.9gm%, TLC 4700/cumm with neutrophils 40% and lymphocytes 56% with 8-9% activated lymphocytes. Further evaluation showed low ESR 6mm/hr, lribinogen 97mg% and albumin 2.2 g/m% with elevated CRP 40mg/L, ferritin 2000ng/ml, LDH 689IU/L, SGPT 110IU/L, SGOT 221 IU/L, total bilirubin 6mg%, D-dimer 4355 ng/FE/UL and Triglycerides 441mg%. His blood, urine, CSF and bone marrow cultures were sterile for endemic bacterial and viral infections in our area. His EBV PCR, CoVID RT PCR and CoVID antibody (Total & IgG) test were negative. His immunoglobulin levels were normal. HRCT Chest showed bilateral mild-moderate plural effusions, mild interstitial thickening in both the lower lobes, few fibrotic opacities & old areas of consolidation bilaterally. 2D echo showed mild pericardial effusion. Bone marrow examination showed Hypercellular marrow with iron depletion and occasional hemophagocytosis with CD6 T lymphocytes proliferation (55.2%) and double positive CD4 & CD8 (12.2%). He was initially commenced on supportive therapy, oxygen & intravenous antibiotics. In view of most probable non-infectious, non-malignant hemophagocytic lymphohistiocytosis, he was finally given intravenous immunoglobulin (2gm/kg) and intravenous pulse methylprednisolone (30mg/kg). He responded well to above regimen within 3 days. He was discharged with immunoglobulin (2gm/kg) and intravenous pulse methylprednisolone (30mg/kg). He was advised to undergo genetic analysis irrespective of person’s past and family history.

Conclusion: Primary HLH type 5 can present first time during childhood and adolescence. Any child presenting with unexplained HLH features should undergo genetic analysis irrespective of person’s past and family history.

REFERENCES:

Disclosure of Interests: None declared