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SAT0499

PREVALENCE OF ULTRASOUND FINDINGS SUGGESTIVE OF INFLAMMATORY ARTHRITIS IN CHILDREN WITH SKIN PSORIASIS (CHILDECHOPSO)

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Background: The prevalence of psoriasis (PsO) in children is estimated between 0.5-1% (1), and can be associated with musculoskeletal involvement, although the prevalence and typology of such involvement is unknown. (2) Over the last years ultrasound associated with Doppler (PDUS) has become an important tool for evaluating joint involvement in children with Juvenile Inflammatory arthritis (JIA). Several studies have shown the high sensitivity of this technique for detecting joint involvement, as well as high acceptability, due to the lack of radiation or of sedation (3).

Objectives: To evaluate the prevalence of joints and entheses involvement in children affected by PsO.

Methods: Observational cross-sectional study aiming at evaluating 150 consecutive children (≤ 16 years) affected by skin PsO and addressed by a dermatologist. For each child a standardized clinical and ultrasound evaluation of joint and entheses is performed at the following bilateral sites: a) Entheses: quadriceps tendon, proximal and distal patellar ligament, Achilles tendon, plantar fascia and extensor elbow tendon), b) joints: metacarpophalangeal, proximal and distal interphalangeal, wrist, elbow, knee, ankle, and metatarsophalangeal. PDUS evaluation is performed by an independent examiner, blinded to the clinical assessment of each subject.

Results: 41 patients were included until now, where 9 patients presented some kind of symptom (painful joint or enthesitis), 24 patients have family history of psoriasis and none of them had family history of psoriatic arthritis. Demographic and clinical characteristics are shown in table 1, whilst PDUS findings in Table 2.

Table 1. Demographic and clinical characteristics:

	Total (n=41)	Asymptomatic (n=32)	Symptomatic (n=9)	p
Males	22 (53.7%)	18 (56.3%)	4 (44.4%)	NS
Age	9.4 $\pm$ 3.9	8.91 $\pm$ 3.5	11.3 $\pm$ 4.6	NS
PsO duration (years)	3.5 $\pm$ 3.4	2.9 $\pm$ 2.9	5.6 $\pm$ 4.5	<0.05
PASI	5 $\pm$ 4.3	4.8 $\pm$ 4.5	5.7 $\pm$ 3.56	NS
BSA	4.3 $\pm$ 3.9	4.47 $\pm$ 4.3	4.1 $\pm$ 2.26	NS
Nail involvement	25 (61%)	19 (59.4%)	6 (66.7%)	NS
Plaques psoriasis	20 (48.8%)	14 (43.8%)	6 (66.7%)	NS
TJC ≥ 1 , n/tot (%)	9 (22%)	0 (0)	9 (100%)	<0.001
SJC ≥ 1 , n/tot (%)	2 (4.9%)	0 (0)	2 (22.2%)	<0.05
Enthesal pain, n/tot (%)	6 (14.6%)	0 (0)	6 (66.7%)	<0.001
Dactylitis	0	0	0	NA

PASI: Psoriasis area severity index. BSA: Body surface area. TJC: Tender Joint Count. SJC: Swollen Joint Count.

Conclusion: This study shows that the presence of ultrasound abnormalities was higher in the symptomatic group and considering the fact that the most frequent inflammatory ultrasound finding was enthesitis, we might consider the enthesitis as a possible landmark for developing juvenile psoriatic arthritis.

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Table 2 PDUS Findings:

Patients	Total (n=41)	Asymptomatic (n=32)	Symptomatic (n=9)	p
≥ 1 ultrasound abnormality, n/tot (%)	19 (46.3%)	13 (40.6%)	6 (66.7%)	NS
≥ 1 joint effusion, n/tot (%)	11 (26.8%)	9 (28.1%)	2 (22.2%)	NS
≥ 1 synovitis, n/tot (%)	3 (7.3%)	1 (3.1%)	2 (22.2%)	NS
≥ 1 enthesitis, n/tot (%)	7 (17.1%)	3 (9.4%)	4 (44.4%)	<0.05
≥ 1 tenosynovitis, n/tot (%)	0 (0)	0 (0)	0 (0)	NA
≥ 1 nail with modified structure, n/tot (%)	22 (53.7%)	19 (59.4%)	3 (33.3%)	NS

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SAT0500

HOW THE ADULT CRISS WORKS IN PEDIATRIC JSSC PATIENTS - RESULTS FROM THE JUVENILE SCLERODERMA INCEPTION COHORT

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Background: The Composite Response Index in Systemic Sclerosis (CRISS) was developed by Dinesh Khanna as a response measure in patients with adult systemic sclerosis. CRISS aims to capture the complexity of systemic sclerosis and to provide a sensitive measure for change in disease activity. The CRISS score is based on a two-step approach. First, significant disease worsening or new-onset organ damage is defined as non-responsiveness. In patients who did not fulfill the criteria of part one, a probability of improvement is calculated for each patient based the Rodnan Skin Score (mRSS), percent predicted forced vital capacity (FVC%), patient and physician global assessments (PGA), and the Health Assessment Questionnaire Disability Index (HAQ-DI). A probability of 0.6 or higher indicates improvement.

Objectives: The objective of this study was to validate the CRISS in a prospectively followed cohort of patients with juvenile systemic sclerosis (jSSc).

Methods: Data from the prospective international inception cohort for jSSc was used to validate the CRISS. Patients with an available 12-months follow-up were included in the analyses. Clinically improvement was defined by the anchor question about improvement (much better or little better versus almost the same, little worse or much worse) in patients overall health due to scleroderma since the last visit provided by the treating physician.

Results: Forty seven jSSc patients were included in the analysis. 74.2% had diffuse subtype. The physician rated the disease as improved in 34 patients (72.3%) since the last visit. No patient had a renal crisis or new onset of left ventricular failure during the 12-months follow-up. Three patients (3.4%) each had a new onset or worsening of lung fibrosis and new onset of pulmonary arterial hypertension. In total, 6 patients resulted in a rating of not improved based on the CRISS in part I. The mRSS, FVC%, CHAQ and PGA significantly improved during the 12-months follow-up in patients who were rated as improved. The predicted probability based on the CRISS algorithm resulted in an area under curve of 0.77 predicting the anchor question of improvement. In summary, 33 (70.0%) patients were correctly classified by the adult CRISS score resulting in an overall area under curve of 0.7.

Conclusion: The CRISS score was evaluated in a pediatric jSSc cohort for the first time. It showed a good performance. However, it seems that the formula of part II of the CRISS score needs a calibration to pediatric jSSc patients.

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