Background

Objectives The aim of this study was analyse the frequency of joint hypermobility in urban schoolchildren and association with musculoskeletal pain.

Methods The modified criteria of Cartier and Wilkinson for joint hypermobility was applied, by two Rheumatologists, on 479 schoolchildren (263 female and 216 male). Mean age was 11±2.4 years, range 6–17 years. The population was 92% Caucasian. All children answered a questionnaire for musculoskeletal pain.

Results Forty one percent had one of the five positive test manoeuvres for joint hypermobility. Only one child had 3 positive test manoeuvres, 20 had two positive test and 175 had one positive test manoeuvres (mean 1.1 ± 0.3). Passive apposition of the thumbs to the flexor aspects of the forearm occurred in 168 cases.

Musculoskeletal pain occurred in 32% of children, without relationship of pain and hypermobility in the same joint.

Presence of pain was no statistically significant among cases with and without hypermobility.

Physical activity was no associated with pain in hypermobility joint.

Conclusion Hypermobility syndrome was rare in our population. Passive apposition of the thumbs to the flexor aspects of the forearm was the most frequent positive maneuver. Joint hypermobility was no related with musculoskeletal pain. Physical activity was no a risk factor to pain in joint with hyperlaxity.

AB0160 THE INFLUENCE OF DIFFERENT KINDS OF THERAPY ON OXIDATIVE-ANTIOXIDATIVE BALANCE IN CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS/JIA/

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Background The aim of this study was to investigate the influence of different kinds of therapy on oxidative-antioxidative balance in children with rheumatoid idiopathic arthritis.

Objectives In our study the intensity of peroxide lipid oxidation was calculated by the contents of malonic dialdehyde (MDA) in plasma. At the same time antioxidant activity was evaluated. We measured the content of vitamin E (Vit. E) in plasma, the total antioxidant status (TAS), as well as the activity of glutathion peroxidase (GPX) and superoxide dismutase (SOD).

In our study we examined 39 children with JIA aged 4–18 years and 27 healthy subjects aged 4–16 years.

8 patients were treated with glucocorticosteroids administered 1–2 mg/kg/24 h in relation to the prednisone standard. 8 children received Methotrexate in the dose of 10–15 mg/m²/week. 9 children were treated with Sulphasalazine in the dose of 20–40 mg/kg/24 h. 14 children were treated with non-steroid anti-inflammatory agents (naproxen 10 mg/kg/24 h). The examination was performed 4–6 weeks after the beginning of the treatment. The results obtained after the treatment were compared with those obtained before the treatment and those in the control group.

Methods We used colorimetric and fluorometric methods.

Results The level of MDA before the treatment, i.e. 2.32 ± 0.86 nM/ml, was significantly higher than that in the control group, i.e. 1.32 ± 0.38 nM/ml ($p < 0.05$). After the treatment with Mtx, Sulphasalazine and non-steroid anti-inflammatory agents,

the values of MDA were still significantly higher than those in the control group and equalled, respectively, 2.32 ± 0.71 nM/ml, 2.14 ± 0.1 nM/ml, and 2.14 ± 0.1 nM/ml ($p < 0.05$). After the treatment with glucocorticosteroids, the values of MDA approximated to those in the control group and averaged 1.72 ± 0.17 nM/ml ($p < 0.05$). Before the treatment, the activity of GPX was significantly lower than those in the control group (4.75 ± 2.59 U/ml vs 7.06 ± 1.99 U/ml ($p < 0.05$)). The values of the other parameters did not appear to depend on the treatment.

Conclusion 1. Our results confirmed the existence of oxidative stress in children with juvenile idiopathic arthritis. 2. The strongest inhibitory effect on peroxide lipid oxidation is exerted by glucocorticosteroids, which conforms to their strongest anti-inflammatory activity. No significant influence of non-steroid anti-inflammatory agents on peroxide lipid oxidation was observed, despite their generally-acknowledged, weak antioxidant activity. No influence of Mtx and Sulphasalazine on peroxide lipid oxidation was observed in the period of examination.

AB0161 CLINICAL AND SEROLOGIC CHARACTERISATION OF 72 JUVENILE IDIOPATHIC ARTHRITIS PORTUGUESE PATIENTS

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Background Juvenile Idiopathic Arthritis (JIA) is a heterogeneous group of systemic inflammatory disorders affecting children below the age of 16 years.

Objectives

Methods We have used the ILAR revised classification criteria for JIA in order to evaluate the clinical patterns of disease of 72 patients regularly followed in our Unit.

Results 72 children with the diagnosis of JIA are being regularly followed: 41 (57%) females and 31 (43%) males. The mean age of diagnosis was 6.6 ± 4.9 years (females) and 8.0 ± 4.5 years (males). The mean follow-up period was 5.44 ± 4.0 years, with a mean disease duration of 6.31 ± 4.6 years. Patients were classified in JIA subtypes: systemic – 16 (22.2%); polyarthritis – 6 (8.3%); oligoarthritis – 35 (48.6%): extended – 9 (12.5%) and persistent ? 26 (36.1%); enthesitis ? 13 (18.0%); psoriatic arthritis ? 2 (2.7%). The knee was the most commonly involved joint in all subtypes: 77.7% of the extended oligoarthritis patients, 92% of the persistent oligoarthritis, 75% of the systemic arthritis, 83.3% of the polyarthritis, 100% of the psoriatic arthritis and 61.5% of the enthesitis related arthritis patients. The second most affected joint was the elbow in extended oligoarthritis (66.6%), the hand in persistent oligoarthritis (30.7%), the wrist in systemic arthritis (50%); the hand and wrist in polyarthritis (83.3%) and psoriatic arthritis (100%), the ankle and hip in enthesitis related arthritis (53.8% and 46.1%). Antinuclear antibodies (ANA) were presented in 19 (26.3%) children: 4 (44.4%) extended oligoarthritis patients; 11 (42.3%) persistent oligoarthritis patients; 2 (12.5%) systemic arthritis patients and 2 (15.3%) enthesitis related arthritis. Rheumatoid factor (FR) was only present in 3 (50%) children with polyarthritis and HLA-B27 was only found in 8 (66.6%) children with enthesitis related arthritis. Uveitis affected 10 (13.8%) children: 6 (23.1%) with persistent oligoarthritis, 2 (22.2%) with extended oligoarthritis, 1 (6.2%) with systemic arthritis and 1 (7.6%) with enthesitis