Objectives: The aims of this study were to evaluate AMH serum levels in a cohort of young adult women affected from JIA, to compare these levels between patients and healthy controls and to assess whether the presence of the disease and the influence of previous exposure to disease-modifying antirheumatic drugs (DMARDs) and of other disease parameters may affect the ovarian reserve.
Methods: Forty women with a diagnosis of JIA, aged 18 to 25 years and with regular menses, and 20 healthy women age-matched were evaluated. Anti-Müllerian Hormone serum levels were measured according to a 2-stage enzyme-linked immunosorbent assay (ELISA) technique using a commercially available kit (AMH Gen II ELISA; Beckman Coulter). Clinical and demographic characteristics, disease duration, previous and current therapies disease activity score on 44 joints (DAS), health assessment questionnaire (HAQ) were performed at the time of blood sample.
Results: JIA patients had a mean age of 21.4±3.2 years, a disease duration of 11.5±6.6 years, a DAS of 1.22±0.58, and 12 (30%) were smokers. No significant differences were found in our cohort of JIA and healthy subjects in AMH serum levels (5.6±0.4 vs 6.6±0.6 ng/ml, respectively, p=0.5).
Considering the JIA cohort, 23 patients (57.4%) were treated with methotrexate (MTX) for a mean period of 2.1±3.1 years and 20 (50%) with anti-TNF drugs for 4.3±2.3 years. Twelve JIA women (30%) were treated with both MTX and anti-TNF. No correlations were found between AMH serum levels and patients age (p=0.6), disease duration (years) (p=0.67) and duration of therapy with MTX (p=0.5) or anti-TNF (p=0.11).
Dividing JIA patients according to MTX use, no differences were observed between MTX users and non users patients in AMH levels (6.0±0.5 vs 5.1±0.5 ng/ml, respectively, p=0.22), age, disease duration and other clinical characteristics. Patients expose to anti-TNF had AMH serum levels tendentially higher then non users patients (6.3±0.6 vs 4.9±0.5 ng/ml, respectively p=0.07).
Conclusions: In our JIA group of young adult JIA women, ovarian reserve seems not be changed by the presence of the disease, the long disease duration and the use of immunosuppressive drugs. These findings could be important for adult JIA patients.
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THU0500 PHOTOBIOSTIMULATION OF CHRONIC CERVICAL PAIN IN JUVENILE POLYARTHRITIS

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Background: Chronic pain management in juvenile arthritis constitutes a special provocation not only for the medical doctors, but also for the patients and parents. Despite the extensive use of the biological agents with high efficacy, combined with the multimodal therapies, chronic pain still remains an important issue for the public health, with implications on the activities of daily living and the scholar performances. Lasers could be used for transmitting biological messages and initiating metabolic changes within living cells: no more pain, much more energy, will contribute to muscular and joints repair.
Objectives: Aim of the present study was to evaluate the effects of photobiostimulation combined with DMARDs in patients with juvenile polyarthritis and chronic cervical pain.
Methods: 62 patients diagnosed with juvenile polyarthritis (ILAR criteria), 11.4 years mean age were randomly divided in Group I (42 patients treated with local laser biostimulation and methotrexate), comparatively with a Group II - control (20 patients) treated with methotrexate and *placebo* laser, for a period of 9 months. Group I received local laser biostimulation with a dose of 2.5 J/cm^2 in 14 latero-cervical painful points, corresponding to the 7 cervical vertebrae, 1 point on the insertion of sternocleido-mastoidian muscle on the styloid processus, and 1 point on each loco-regional submandibular lymphatic ganglions, using a GaAlAs laser probe of 670 nm, 25 mW output power and a modulation frequency of 10 Hz. 45 joules were applied daily as laser treatment, 10 sessions per month, repeated 3 times, in the 9 months. For all the patients, the main medication was methotrexate in a dose of 0.6 mg/kg (maximum 20 mg) per week, steroids and symptomatic drugs, when necessary. Tutors and the older children have signed the informed consent. Measurement of the subjective pain was on VAS (0 – 100 mm), and objective pain was assessed with an electronic device, the Algometer Commender. The range of motion for flexion/extension, and the rotation to the left/right of the cephalic extremity was measured with Dualer IQ Inclinometer.
Results: In the end of study, the level of chronic pain estimated with Commander Algometer decreased by 74.6% in Group I, compared with only 41% in the control Group, and the range of motion in the affected cervical segment assessed with Dualer Inclinometer increased by 66% in the first Group, compared with only 34% in *placebo* group.
Conclusions: Laser biostimulation proved to be an effective method for the complex management of chronic pain in juvenile polyarthritis.
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THU0501 EFFICACY AND SAFETY OF METHOTREXATE AS MAINTENANCE THERAPY FOR CHILDREN WITH ANTI–N-METHYL-D-ASPARTATE RECEPTOR (NMDAR) ENCEPHALITIS: EXPERIENCE OF A SINGLE CENTER

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Background: Autoimmune-mediated encephalitis (A-ME) in children remains as a diagnostic and therapeutic challenge (1). These patients have a 12% risk of relapse, which is usually more severe (2). We previously proposed the therapy with methotrexate (MTX) for this condition (3), and we are offering now additional data on its potential benefits.
Objectives: To describe the outcome of children with A-ME receiving MTX for at least one year after stabilization of symptoms.
Methods: In this retrospective study we recruited 11 patients (7 females) with A-ME, a mean age of 7.5 years (range 8 months - 14 years), and with a median follow up of 22 months. In all cases, anti-NMDAR antibodies (subunit NR1) were detected in the CSF. Data from these patients were collected by consulting medical records. Relapse of encephalitis was defined as new onset of symptoms occurring after at least 2 months of remission, in the absence of other CNS disease.
Results: Patients presented with seizures (n=10), behavioral changes (n=11), psychosis (n=11), speech problems (n=10), and autonomic/breathing dysregulation (n=9). Patients were initially treated with methylprednisolone pulses (n=11), rituximab (n=6), intravenous immunoglobulins (n=4), cyclophosphamide (n=3) and MTX (n=11). Complete remission was observed in all cases, and maintenance therapy with MTX (10 mg/m^2 BSA) was started in all them, with gradual tapering until it was stopped. Interestingly, no relapses have been observed in any case during the mean follow up. One patient had mild oral ulcers and other showed mild elevation of liver enzymes; both events remitted after discontinuing the treatment for a couple of weeks.
Conclusions: Since relapses in patients with A-ME are a relatively frequent, the immunosuppressive therapy to prevent them is fully justified (4). Moreover, MTX therapy in pediatric patients is safe and usually well tolerated (3,5,6). The recommended dose is less than 15 mg/m^2 BSA or 1 mg/kg, with a maximal dose of 40 mg and with folic acid supplementation. In this regard, our study suggests that MTX administration (10 mg/m^2 BSA) during at least one year is a viable and effective therapy for maintenance treatment of A-ME. Accordingly, we did not detect relapses in the 11 patients studied with a median follow up time of 22 months and with an acceptable safety profile.
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THU0502 EFFICACY AND SAFETY OF CANAKINUMAB IN PATIENTS WITH STILL'S DISEASE: A POOLED ANALYSIS OF SJIA DATA BY AGE GROUPS

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Background: Still's disease presents in paediatric and adult patients (pts) as a disease continuum with similar symptoms and pathophysiology.[1,2]
Objectives: To evaluate the efficacy and safety of canakinumab (CAN), a selective human anti-IL1 β monoclonal antibody, in SJIA pts from pooled data across 3 age groups (grps): children, adolescent and adults (the latter representing adult-onset Still's disease [AOSD] population).
Methods: Data of CAN treated pts were pooled from 4 SJIA studies (NCT00426218, NCT00886769, NCT00889863, NCT00891046). CAN was ad-