

Introduction: Ankylosing spondylitis (AS) is a chronic, gradually progressive inflammatory disease of the spine, which in a number of patients can occur simultaneously with lesions of entheses and peripheral joints.

Objectives: The aim of the study was to compare the effectiveness of treatment of juvenile forms of AS, with the use of post-isometric relaxation techniques in the treatment program, and without it.

The onset of the disease often occurs in childhood (juvenile AS). At the same time, in childhood, the manifestations of peripheral arthritis and enthesitis significantly prevail in patients over the symptoms of axial lesion, and in adolescence - the pathology of the hip joints (coxitis). Subsequently, the clinical picture of the disease becomes more typical for AS.

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Methods: Methods. A prospective clinical study was conducted with 98 children with a confirmed diagnosis of ankylosing spondylitis aged 10 to 14 years (68 girls, 30 boys). All patients had a period from the moment of diagnosis from 6 months to one and a half years. The exclusion criteria for patients were the presence of other diseases, joints and / or spine, which aggravated the course of the underlying disease. All children were randomly divided into two groups: children (68) who received a combination treatment including massage, acupuncture and exercise and post-isometric muscle relaxation techniques and children (30) of the 2nd group (G2) who received the program, with the exception of post-isometric relaxation.

All children received treatment 5 times a week (from Monday to Friday, except Saturday and Sunday), the total duration of the rehabilitation course was 14 days. The therapeutic program included the following non-drug methods of exposure: for G1, 30 minutes - an acupuncture session, 20 minutes - a general massage session and at least 45 minutes of exercises in a gymnastics room with a physiotherapy instructor, as well as sessions of post-isometric muscle relaxation for the chest, back, upper and lower limbs. The visual analogue scale (VAS) was used as a method of assessing effectiveness, which was assessed at the beginning of the study, at the fifth, ninth and last clinic visits. Also, the BASDAI index was used.

Results: Results. 97 patients (99%) completed the protocol: 68 (100%) in G1 and 29 (97%) in G2. The average VAS score in G1 at the beginning of the study was 5.8 ± 0.6 , and after the tenth session it dropped to 2.1 ± 0.3 . A significant decrease in pain was also recorded in group G2 (from 5.8 ± 0.6 at the beginning of the study to 3.5 ± 0.2 after treatment), a statistically significant difference ($p < 0.05$) between different groups. To assess the period of time over which the treatment effect persists, all patients were asked to send a subjective VAS score to the treating physician after completing treatment on a monthly basis for 12 months. It was found that the inclusion of post-isometric muscle relaxation in the rehabilitation program allows the effects of pain reduction to be prolonged. Patients in the G1 group had lower VAS scores compared to patients in the G2 group by 4.3 months longer.

Conclusion: Conclusion. The results obtained indicate a high efficiency of the use of post-isometric muscle relaxation in the complex treatment of patients with established ankylosing spondylitis.

Disclosure of Interest

None declared

LB005

Canakinumab in Systemic Juvenile Idiopathic Arthritis: Clinical Inactive Disease Rate and Safety in Italian Patients

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Introduction: Systemic juvenile idiopathic arthritis (sJIA) accounts for 10-20% of all patients with JIA. The demonstration of a key role of IL-1 and IL-6 in the pathogenesis of the disease, led to consider sJIA an autoinflammatory disease: this explains the successful use of IL-1 and IL-6 inhibitors. While the efficacy and safety of anakinra in sJIA is widely documented, there are no reports on large series of patients treated with canakinumab outside of the setting of clinical trials.

Objectives: The aim of this study was to evaluate clinical response rate and disease course of canakinumab in Italian cohort of patients with sJIA.

Methods: This is a retrospective multicenter study. Demographic features, previous medical history and therapies was evaluated for each patient. Clinical features, laboratory parameters and adverse events were collected at baseline and after 6 months from starting canakinumab. Clinically inactive disease (CID) was defined according to Wallace criteria.

Results: We enrolled 82 (50 F) patients with sJIA treated with canakinumab from 2006 to 2020; 75 of them reached a follow up of 6 months. At baseline 49 patients (59.8%), of which 36 in active disease (AD) and 13 in CID, were previously treated with anakinra, while 33 patients in AD (40.2%) were naïve. At 6 months of follow-up 51/75 patients (68%) met criteria of CID off-glucocorticoids, including all 13 patients in CID at baseline, 19 patients in AD previously treated with anakinra and 19 patients naïve. Twenty-four patients (32%) maintained AD. To evaluate if the response to canakinumab might be related to the baseline features we excluded 13 patients in CID at baseline; we divided the 62 patients in responders (38/62, 61.3%) and non-responders (24/62, 38.7%). There were no significant differences between the two groups regarding demographic, clinical and laboratory parameters, except for a higher number of active joints ($p=0.021$) and for a greater use of disease-modifying antirheumatic drugs (DMARDs) ($p<0.0001$) in non-responders patients (Table). No major adverse events nor cases of macrophage activated syndrome were recorded.

Conclusion: Canakinumab was able to induce CID in patients in AD at baseline (both in naïve patients and in patients previous treated with anakinra) and to maintain clinical remission achieved with anakinra. The percentage of clinical response is in keeping with what reported in literature, even if we did not found predictive factors of response.

Trial registration identifying number:

The study was performed after approval by the ethics committee of the "Ospedale Pediatrico

Bambino Gesù" with the ethics approval number 1683 OPBG 2018.

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Consent

I have obtained written consent

Disclosure of Interest

None declared

LB006

Risk Factors of Persistently Active Disease among Filipino Children with Systemic Juvenile Idiopathic Arthritis: 10-Year Study in a Tertiary Hospital

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Introduction: Systemic Juvenile Idiopathic Arthritis (SJIA) is one of the most common subtypes of arthritis among children in Southeast Asia with higher progression of disease activity. Unsuccessful control of the disease may lead to long-term disability resulting to functional limitations that would affect the productivity of the individual.

Objectives: The study determined the risk factors for persistently active disease among Filipino children aged 2 weeks to 18 years diagnosed

with SJIA seen in the Section of Pediatric Rheumatology of University of Santo Tomas Hospital (USTH) from June 2009 to June 2019.

Methods: A retrospective cohort study was done involving chart review of both clinical division and private division patients. The following parameters were determined: sex, age at diagnosis, time elapsed from symptom onset to diagnosis, joint involvement, inflammatory markers, and extra-articular manifestation. Statistical analysis included frequencies, percentages, and logistic regression for the risk factors of interest.

Results: One hundred twenty-seven patients with SJIA who were appropriately treated for at least 3 years were included. Among which, 88 (69%) developed a persistently active disease. Among them, 36 (41%) were diagnosed at 1-5 years old. Many were diagnosed (n=54, 61%) after 5 weeks. The most commonly affected joints were the wrists, knees, and ankles. Most common contracture noted involved the cervical joint. Only 33 (26%) patients received biologic agents. Risk factors identified for the development of persistent disease activity were low hemoglobin levels at the time of diagnosis and after 1 month of treatment, elevated platelet count after a month, substantial joint count after 3 months, and increased ESR after 6 months.

Conclusion: The change or improvement of the joint count and in hemoglobin, platelet count, and ESR levels after appropriate treatment may determine risk for persistently active disease in Filipino children with SJIA.

Consent

I have obtained written consent

Disclosure of Interest

None declared

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