AB1047 DYNAMICS OF GROWTH AND BONE AGE IN CHILDREN WITH JIA DURING BIOLOGICAL THERAPY

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Background: In children with severe juvenile idiopathic arthritis (JIA), growth impairment is often accompanied by retardation of bone age. Dynamics of growth and bone during biological therapy is an important criterion for the effectiveness of treatment.

Objectives: To assess the effect of biological therapy on growth and bone age in children with JIA.

Methods: The study included 45 patients with JIA and (30 boys and 15 girls, mean age 12.2 ± 2.7 years; disease duration before the start of biological therapy 6.5 ± 3.3 years, 18 children with systemic JIA and 27 with polyarticular JIA). All children due to the ineffectiveness of standard therapy were transferred to biological therapy with TNF- α and IL-6 inhibitors. The study assessed growth SDS and bone age (according to x-ray imaging) before starting biological therapy (initially) and after 24 months of therapy.

Results: Of the 45 children, the initial growth retardation marked in 13 children, all with systemic JIA (growth SDS -3.19 ± 0.36 (-6.67; -2.04)). All these children also showed a lag of bone age from the passport by 2.9 ± 0.5 years, which corresponded to growth retardation. During biological therapy, the growth retardation decreased within 24 months: growth SDS -2.73 ± 0.34 (-5.87; -1.17). The lag of bone age was maintained at 2.3 ± 1.5 years, which is comparable to the baseline ($p = 0.053$). In 32 children, the initial growth was within the normal range (growth SDS 0.12 ± 1.07 (-1.97; 1.76)); 8 children with sJIA, 24 with polyarticular JIA. In all these children, the lagging of bone age from the passport at the time of the start of biological therapy was not detected (deviation from the passport age at most 1 year). During biological therapy for 24 months, growth rates remained normal: growth SDS was 0.22 ± 0.99 (-1.58; 1.67). Indicators of bone age in all children were corresponding passport age.

Conclusion: In children with severe JIA and normal growth, the bone age is more likely to correspond to the passport age; during therapy with biological agents, there is no significant change in bone age in these children. In children with severe JIA, growth impairment and bone age may be observed, most likely in children with systemic JIA. During biological therapy, there is an improvement in growth, while the lagging of bone age from the passport remains, which indicates the preservation of growth potential and the possibility of achieving higher final growth.

REFERENCES

- Uettwiller F, Perlberg J, Pinto G, Bader-Meunier B, Mouy R, Compeyrot-Lacassagne S, Melki I, Wouters C, Prieur AM, Landais P, Polak M, Quartier P. Effect of biologic treatments on growth in children with juvenile idiopathic arthritis. *J Rheumatol*. 2014 Jan;41(1):128-35

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AB1048 SYSTEMIC LUPUS ERYTHEMATOSUS WITH UNUSUAL PRESENTATION : SINGLE CENTRE EXPERIENCE FROM NORTH INDIA

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Background: Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease. Presentation can range from constellation of non specific constitutional symptoms to definitive signs and symptoms. Systemic Lupus International Collaborating Clinics (SLICC) criteria help in making a diagnosis of SLE. SLE mimics many clinical entities and diagnosis may become difficult at times, especially if presentation is atypical. We describe children who presented with unusual manifestations and were finally diagnosed to have pediatric SLE.

Objectives: To highlight unusual presentation of pediatric SLE.

Methods: Retrospective case review of all children diagnosed as SLE from July 2017–November 2018 at a single tertiary care hospital in north India was done. We here describe 5 children who presented with unusual manifestations.

CASE 1: 8 years, girl, presented with fever for 1 month and bilateral pleural effusion. She had had 2 hospitalizations in the past. Once with fever, epistaxis and haemorrhagic shock and subsequently with fever, hepatosplenomegaly and bicytopenia and was managed as tropical infections at both times. She was evaluated this time and was diagnosed to have SLE and managed for the same.

CASE 2: 11 years, boy, presented with arthritis in multiple small and large joints of body. No other features of SLE were seen. On evaluation ANA and anti dsDNA was found to be positive and he fulfilled criteria for SLE. He was started on subcutaneous, weekly methotrexate and responded to treatment. However, he developed lupus nephritis during disease course after 6 months of diagnosis. Renal biopsy revealed Class III+V lupus nephritis. Intravenous Cyclophosphamide pulses were started for induction along with tapering doses of corticosteroids.

CASE 3: 8 years, girl, presented with early morning periorbital puffiness and abdominal distension. She also had a history of photosensitivity and Raynaud phenomenon. Urine routine examination revealed nephrotic range proteinuria with no hematuria. Clinical possibility of nephrotic syndrome secondary to SLE was kept. Renal biopsy revealed Class V Lupus nephritis. She was started on oral prednisolone and enalapril.

CASE 4: 15 years old, girl, presented with non-specific generalized body pains with joint pains associated with low grade fever. There were no other complaints. Examination was unremarkable. Investigations, however, were suggestive of SLE.

CASE 5: 17 years old, girl, presented with high grade fever and pain in bilateral knee joints and malar rash. Investigation were suggestive of SLE with MAS (macrophage activation syndrome). Child was started on iv antibiotics and iv immunoglobulins but died during the disease process.

ANA positivity, hypocomplementemia and Anti ds DNA positivity were seen in all the 5 cases.

Results: out of 11 children diagnosed to have SLE, 5 presented with unusual manifestations as described above. All patients were initiated on hydroxychloroquine and photoprotection other drugs used were prednisolone, naproxen, subcutaneous weekly methotrexate, cyclophosphamide and Azathioprine.

Conclusion: In this report we present unusual presentations as the predominant manifestation of SLE and emphasize the fact that early recognition and awareness of unusual presentation of SLE help institute timely initiation of appropriate treatment.

REFERENCES

- Iqbal S, Sher MR, Good RA, et al. Diversity in presenting manifestations of systemic lupus erythematosus in children. *J Pediatr*. 1999;135:500-505
- Bennarroch LMK, Sterba G, Bosque M. Macrophage activation syndrome as an early presentation of lupus erythematosus. *J Allergy Clin Immunol* 2006;117:s210.

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AB1049 CO-MORBIDITY INDEX IN CHILDREN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Comorbid conditions in patients with rheumatic diseases (RD) aggravate the course of diseases, worsen the prognosis, impede the response to therapy, and reduce the quality of life of patients. Initial manifestations of comorbid lesions of organs and systems are already manifested in childhood and adolescence, and in the future are the causes of persistent morphologic and functional disorders, disability and mortality of patients.

Objectives: The purpose was to identify comorbid conditions in children with systemic lupus erythematosus (SLE), followed by an assessment of the comorbidity index (CI).

Methods: 41 patients with SLE aged 7-18 years were examined. The average duration of the disease at the time of the survey was 44.5 ± 2.9 months, 20 persons (48.78%) had a period of illness up to 3 years, 21 (51.22%) - over 3 years. Among the patients female subjects predominated - 37 (90.24%). The comorbidity index (CI) was determined by the total score (points) of the disturbances in all systems of the organism without specific diagnoses.