PERSONALISED THERAPY IN PEDIATRIC RHEUMATOLOGY

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INTRODUCTION

Chronic recurrent multifocal osteomyelitis (CRMO) is an autoinflammatory bone disorder characterized by lytic, sclerotic, and hyperostotic lesions. CRMO often exhibits periods of flair-ups and remissions accompanied by bone pain, tenderness of the soft tissue around the lesions, joint swelling and/or fever. It mostly affects the pediatric population with the onset age usually around nine years.

OBJECTIVE

The aim of our study was to compare the number of active lesions confirmed by WBMRI (whole body MRI) as well as CHAQ (Childhood Health Assessment Questionnaire) value before Pamidronate treatment with the number of active lesions confirmed by WBMRI and CHAQ value at the most recent check-up.

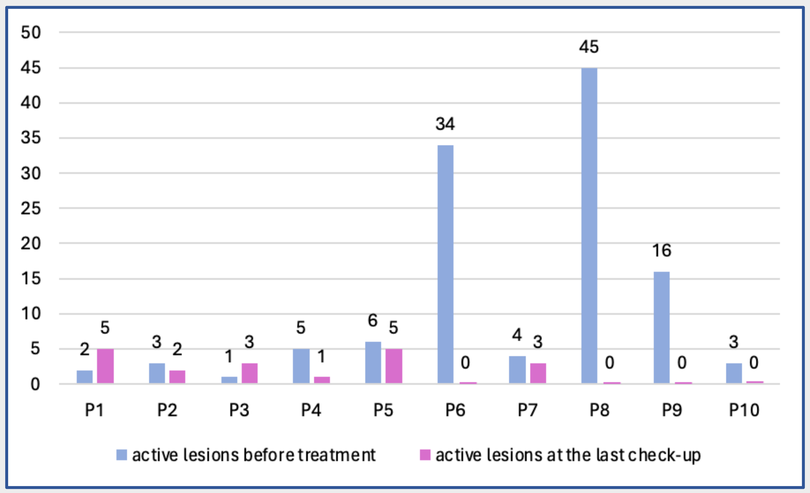

Fig. 1: Active lesions confirmed by WBMRI (source: own)

OBJECTIVE CONTINUED

All of the data were entered into the Chronic Non-Bacterial Osteomyelitis International Registry (CHOIR) via the Research Electronic Data Capture (REDCap) system in collaboration with the University of Washington, USA.

METHODOLOGY

Out of the 16 patients monitored for CRMO at the Pediatrics clinic, University Hospital in Olomouc, 11 were treated with pamidronate. Patients received 1mg/kg/day of pamidronate during each hospitalization (one course of treatment lasting 3 days). The interval between courses was usually 3 months. Data were collected from medical reports throughout their follow-up from the university hospital system including medication history and imaging data (WBMRI). CHAQ value was obtained by questionnaire.

RESULTS

A total of 11 patients were analysed. Nine (81,8%) were females and two (12,2%) were males. Out of those patients, eight (72,7%) had an improvement in the number of active lesions at their most recent WBMRI, two (18,18%) had a slight increase in the number of active lesions and one patient's treatment course started too recently to assess any changes (Fig. 1).

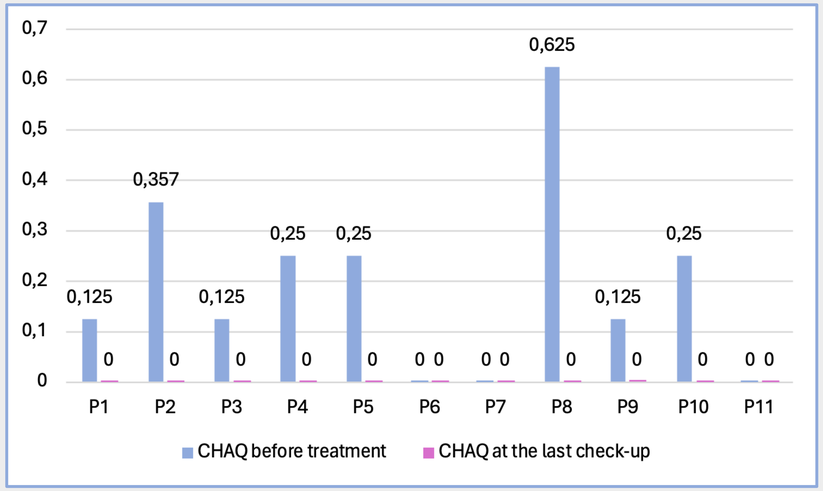

Fig. 2: CHAQ values (source: own)

CONCLUSION

The number of active lesions has decreased substantially, in five patients reaching to 0. As to CHAQ, the values before treatment ranged between 0 and 0.625, whereas after the treatment, all 11 patients had CHAQ values of 0, meaning that CRMO does not affect their ability to function in their daily lives (Fig. 2). Pamidronate treatment has proven effective in our group of patients, but not entirely beneficial due to the need for hospitalization. More data and further studies are necessary to assess the most efficient way to quickly and accurately diagnose patients with CRMO as well as determine the most effective and beneficial treatment.