Pediatric Rheumatology

Poster presentation

Bone mineral density in patients with Juvenile Rheumatoid Arthritis

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Background

There is increasing in bone metabolism in patients with rheumatic disorders, but there are few data on bone mineral density (BMD) and its relationship with disease-related variables in patients with juvenile rheumatoid arthritis (JRA). The aim of this stud was to investigate BMD in Chinese patients with JRA and to evaluate its relationship with disease-related variables.

Materials and methods

BMD indexes were tested by Osteospace quantitative ultrasound instruments at calcaneus. Clinical and serologic manifestations of patients with JRA were tested and recorded.

Results

There were 37 patients with JRA (33 girls and 4 boys, with a mean age of 12.31 ± 3.29 years) and 20 healthy controls (matched for age and sex ratio with JRA patients) were consecutively recruited in this study between 2005 and 2007. BMD of the calcaneus in the patients with JRA was significantly lower than that in healthy controls ((0.71 ± 0.13) g/cm^2 vs (0.97 ± 0.18) g/cm^2, $P < 0.05$). Although with the increasing of cumulative dose of steroids, BMD decreased, but there was no significant correlation between cumulative dose of steroids and BMD.

Conclusion

BMD was significantly lower in JRA patients compared with healthy controls. Although cumulative dose of steroids and diseaese appeared to have some influence on BMD, none disease-related variables were independently correlated with BMD.