Pediatric Rheumatology

Poster presentation

Anti-cyclic citrullinated peptide: its prevalence and clinical significance in a South African cohort with juvenile idiopathic arthritis

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Background
Anti-cyclic citrullinated peptide (anti-CCP) antibodies are a highly specific serological marker for adult-onset rheumatoid arthritis, present early in the course of the disease, and are a marker of erosive disease.

Objective
To assess the prevalence and clinical significance of anti-CCP antibodies in a cohort of children with juvenile idiopathic arthritis (JIA).

Methods
A retrospective review of the records of children with JIA attending a paediatric rheumatology clinic at Chris Hani Baragwanath Hospital was undertaken. Anti-CCP antibodies were tested using an enzyme linked immunoabsorbent assay (EliACCP).

Results
Records of 52 patients (54% males, 46% females) were reviewed. The mean (SD) age and follow-up period were 10.69 (3.81) and 2.3 (1.7) years, respectively. The majority of the children (83%) were Black. The subtypes of JIA were as follows: systemic 21%, polyarticular 50%, oligoarticular 19%, enthesitis-related arthritis 2%, psoriatic 2% and other 6%. Anti-CCP antibodies were present in the sera of 8 of 28 patients tested (29%). They were detected exclusively in patients with the polyarticular subtype of JIA. IgM RF was positive in 14 (29.17%) of the total cohort, but not exclusively in patients with the polyarticular subtype of JIA. The overall concordance between the 2 tests was fair (Kappa statistic = 0.39).

Conclusion
Anti-CCP antibodies are present in a high proportion of patients with JIA, and in the polyarticular JIA subtype. They appear to be a better marker of this subtype than IgM RF. The concordance between anti-CCP antibodies and IgM RF in our patients with JIA is fair.