

Poster presentation

Open Access

The correlation between clinical and ultrasonographic findings of ankle disease in JIA

JFT Burns*¹, SA Wright¹, C McCallister¹ and ME Rooney²

Address: ¹Musgrave Park Hospital, Belfast, UK and ²Queen's University/MPH, Belfast, UK

* Corresponding author

from 15th Paediatric Rheumatology European Society (PreS) Congress
London, UK. 14–17 September 2008

Published: 15 September 2008

Pediatric Rheumatology 2008, **6**(Suppl 1):P100 doi:10.1186/1546-0096-6-S1-P100

This abstract is available from: <http://www.ped-rheum.com/content/6/S1/P100>

© 2008 Burns et al; licensee BioMed Central Ltd.

Background

The ankle joint is frequently involved in juvenile idiopathic arthritis (JIA) but it is unclear whether this is predominantly due to synovitis, tenosynovitis or both. We therefore compared clinical and ultrasonographic findings in swollen ankle joints of children with JIA to better delineate the anatomical basis for swelling.

Methods

34 patients with 49 clinically swollen ankles were included. (19 polyarticular JIA, 13 oligoarticular JIA, 1 systemic JIA and 1 psoriatic JIA). All cases had at least one clinically swollen ankle joint US scans were performed by an experienced rheumatologist using a Sonosite 180 Plus (L38 5–10 MHz linear transducer) or Esaote MyLab 25 scanner (LA523E 7.5–12 MHz linear transducer).

Results

69% of ankles had tenosynovitis and 39% had tenosynovitis alone. Only 29% of swollen ankles had a tibiotalar effusion alone. 33% had both tenosynovitis and a tibiotalar effusion.

When results were analysed by JIA subtype we found 81% of oligoarticular JIA ankles had tibialis-posterior tenosynovitis but only 19% had tibiotalar effusion alone.

As a result of these findings we are performing a prospective study. Preliminary analysis of the first 15 ankles confirms the clinical overdiagnosis of tibiotalar synovitis and underdiagnosis of tendon involvement.

Conclusion

In JIA with ankle disease, 39% of cases the main ankle joint was not involved and tenosynovitis, sometimes in isolation, was the dominant finding. This has implications for therapeutic intervention and also for an improved classification of children with JIA especially with ankle involvement.

The results of the prospective study will be given in full.