

Septic Arthritis: A 5 Year Retrospective Study

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Background: Septic arthritis (SA) is a disabling and potentially life-threatening condition requiring prompt diagnosis and treatment.

Aims: Comparing results after the implementation of management guideline in our department in January 2007 and compliment evaluation.

Materials and Methods: Retrospective study of children with SA, admitted between January 2003 and June 2008. Demographic, clinical, laboratory, imagiologic, therapeutic data and outcome were analysed.

Results: 56 patients, with median age of 23 months (max 15 years; min 17 days). Risk factors were present in 19,6% (congenital heart disease and trauma) and co-morbidities in 16,1% (varicella, meningococcal sepsis, pneumonia, piomyositis, bursitis and Kawasaki disease). Microbiological diagnosis was achieved in 32,1%, by blood culture (11%), pus aspiration (5.4%) or both (16%). *Staphylococcus aureus* was the predominant organism (17,9%).

After guideline introduction we verified: a slight increase in laboratory data (WBC 90,5 vs 100%, p=0,5; CRP 88 vs 100%, p=0,3; ESR 40,5 vs 64,3%, p=0,1); synovial fluid analysis (0 vs 21,4%, p=0,01), imaging (US 88 vs 92%,p=0,6; bone cintigraphy 19 vs 35,7%, p=0,25) and microbiologic studies (pus aspiration cultures 59 vs 78,6%, p=0,3). There was no significant change in therapeutic arthrocentesis (83,3 vs 85,7%, p=1). Antibiotic use according to the guideline was 71% and the duration was accomplished in 64%. There was no significant reduction on median in-hospital stay ($14 \pm 13,2$ vs $13,5 \pm 8,7$ days, p=0,5) and in 50% the follow-up was insufficient.

Conclusion: Our audit identified deficiencies in standards of care of SA, despite a management improvement after guideline implementation.