Life threatening pelvic musculo-skeletal infections in children: Early prognostic indicators for deterioration in pelvic pyomyositis

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Introduction: Musculoskeletal infections around the hip and pelvis are relatively uncommon. These have historically been treated successfully with antibiotic therapy alone in the absence of septic arthritis or frank collections. The advent of more aggressive organisms with new virulence factors has led to life-threatening pelvic pyomyositis despite antibiotic treatment in the otherwise healthy child.

Aim/Hypothesis: To review all cases of musculoskeletal pelvic infections over a 6 month period to establish whether prognostic indicators can be identified to predict rapid deterioration/multiorgan involvement.

Method: All primary infections at Westmead children’s hospital over a 6 month period. Only cases involving the pelvic girdle were included; septic arthritis of the hip was excluded as were secondary infections and hardware related infections. Initial presentation, physical examination and emergency investigations were critically evaluated to differentiate patients likely to rapidly deteriorate.

Results: 9 cases of deep pelvic girdle infections were identified. Of these 3 patients developed multiorgan failure requiring varying amounts of invasive supportive care. The initial WCC trends and procalcitonin levels were suggestive of rapid deterioration. Infection with community acquired MRSA was also associated with a poor outcome.

Conclusion: Deep pelvic infections in adolescents and children can be life-threatening. Early commencement of appropriate antibiotics before positive cultures may be beneficial. Very high procalcitonin and low WCC are associated with the poorest outcomes.

Biography
Dr. Chris Phoon completed undergraduate studies at the University of NSW and has been working in the field of orthopaedic surgery since 2005. He is a member of the Royal Australasian College of Surgeons and the Australian Orthopaedic Association.