

Sepsis in Orthopaedic Surgery: Epidemiology, Microbiology, Treatment, Consequences

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Introduction. Musculoskeletal sepsis – a region of orthopaedic surgery focused on the diagnosis and treatment of infections involving bones, joints, muscles, and skin. The objective of our study was to point at the things that should be taken into account by physicians faced with probable musculoskeletal sepsis.

Materials and methods. A retrospective study was carried out and included all orthopaedic patients with positive blood culture between January 1, 2009 and March 31, 2012 who were admitted in the Hospital of Traumatology and Orthopaedics.

Results. Overall, thirty five patients were hospitalised. Thirty one patients met the criteria for admission to the ICU. Median time spent in the ICU was 8 days with the range from 1 to 70. Source of infection was recognised in twenty five patients; it was not obvious for six patients.

Moderate or severe septic shock developed in nineteen (61.3%) patients, whatever twenty four (77.4%) required invasive monitoring, five – PICCO monitoring, three – continuous haemodialysis. Overall mortality was 19.4 % (six patients). 58.1 % were artificially ventilated from 1 to 46 days. Main microbial culture was *Staphylococcus aureus* (45.2 %), second *Clebsiella Pneumoniae* (12.9 %), third *Escherichia coli* and *Enterobacter cloacae* (6.5 %). More prevalent risk factors were diabetes mellitus, oncologic disease, ischemic heart disease and adipositas.

Conclusions. Patients with a history of a pain, swollen and tender in the joint, extremities or back with restriction of movement should be regarded as having septic inflammation until proven otherwise. We should always take into account orthopaedic sepsis if any other source is not obvious.