

Acute osteoarthritis: exuberant presentation of an unusual condition in the neonatal period

Rita Espírito Santo,¹ Margarida Alcaface,² Ana Tavares,³
Maria Rosário Cancellata de Abreu³

¹Pediatrics Department, Hospital de Santa Maria, Lisboa, Portugal

²Pediatrics Department, Hospital Dona Estefânia—Centro Hospitalar Lisboa Central EPE, Lisboa, Portugal

³Neonatology Functional Unit, Woman and Children Department, Hospital de Cascais Dr. José de Almeida, Lisboa, Portugal

Correspondence to

Dr Rita Espírito Santo,
a.r.espiritosanto@gmail.com

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DESCRIPTION

A late preterm infant, with very low birth weight (1430 g), was admitted in our unit after an induced delivery at 34th week of gestation for fetal growth restriction since the 32nd week. After birth, the neonate's first evaluation revealed no infectious parameters (9120/ μ L leucocytes, C reactive protein (CPR) <0.5 mg/dL) and no infection (including TORCH group) was documented in the mother during pregnancy. Between days 2 and 3 a peripheral venous catheter in the left inferior limb was used for fluid and electrolyte therapy. On day 7, left knee inflammation and pseudoparalysis were observed, with preferential position of limb in flexion (figure 1). No systemic signs were detected and laboratory evaluation showed normal leucocyte count and mild CPR elevation (2.4 mg/dL); the knee X-ray revealed soft tissue swelling and femur lytic lesion (figure 2); the joint ultrasound scan revealed synovial thickening with non-pure articular liquid. Surgical drainage was performed and empiric antibiotic therapy (vancomycin, gentamicin, cefotaxime) was started. After *Staphylococcus aureus* methicillin-sensitive isolation in blood and synovial fluid cultures, the therapy was changed to flucloxacillin. Thirty five days of antibiotics were completed with good response, without sequelae at follow-up 9 months later.

Acute osteoarthritis is an uncommon condition in neonates, usually presenting only systemic signs such as irritability, poor feeding or fever, therefore leading to delayed diagnosis.¹ On the contrary, our case was manifested by local signs without any systemic repercussion. Concomitant septic arthritis and long-term complications are frequent.¹ Early diagnosis and treatment are associated with better outcomes,² which were possible in our case due to exuberant local signs.



Figure 1 Exuberant signs of inflammation of the knee on the first day of disease.



Figure 2 Knee radiograph: swelling of the soft tissues and femur lytic lesion.

Learning points

- ▶ Osteoarticular infections are uncommon in the neonatal period (1–3 per 1000 admissions in neonatal intensive care unit), usually presenting few symptoms. Nevertheless, the absence of systemic signs should not rule out infection in the newborn.^{1 2}
- ▶ A daily minucious multiorganic clinical evaluation in all hospitalised neonates is essential for the diagnosis and prognosis, as an early surgical drainage and adequate antibiotics are associated with better outcomes.³

Contributors MA, AT, MRCdA conducted the analysis of the described case. RES and MA drafted the manuscript. AT and MRCdA critically reviewed the manuscript. All authors read and approved the final version.

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