

## Hip septic arthritis: A rare condition

(Artritis séptica de cadera: Una condición rara)

Vitorino Modesto-dos Santos<sup>1</sup>, Lister Arruda Modesto-dos Santos<sup>2</sup>, Andressa Praça Tedeschi<sup>3</sup>

### Dear Editor

Septic arthritis (SA) of the hip is a severe infection less common in adults, predominantly with a bacterial etiology, and originated by hematogenous route or local inoculation of the agents.<sup>1-5</sup> The main etiological germs of SA are *Staphylococcus aureus* and *Streptococcus pneumoniae*; but, besides other bacteria, more rare infections may be by *Mycobacterium tuberculosis* or fungi.<sup>1-5</sup> Delgadillo-Cañón ED and colleagues reported a 67-year-old male who had a hip SA associated with cystostomy procedures because of prostatic hyperplasia, evolving with iliopsoas abscess.<sup>1</sup> He underwent piperacillin-tazobactam and clindamycin and hip arthrotomy; the fluid culture revealed *S. aureus* sensitive to the antibiotic schedule utilized with success during 3 weeks.<sup>1</sup> With unremarkable evolution, the patient was listed as a candidate for the hip replacement.<sup>1</sup>

Some additional recent literature descriptions can emphasize the current first reference. Cools J and colleagues reviewed data from 41 patients who had surgery for SA during 16 years, and 25 had previous computed tomography (CT) or magnetic resonance imaging (MRI) data.<sup>2</sup> There was no abscess in 36% of them, 32% had an abscess in one anatomical area, and 32% had abscesses in multiple anatomical regions; gluteal abscesses were more frequent in cases of SA due to contiguity, and those of iliopsoas region in cases of SA by hematogenous seeding.<sup>2</sup> Significant prognostic factors were not found; the authors recommended advanced imaging studies to search for hip SA, as extra-articular abscesses were detected in 64 % of these cases.<sup>2</sup> Li M and colleagues reviewed data from 43.5 follow-up months of 10 patients with osteonecrosis of the femoral head (ONFH) and hip SA who had two-stage arthroplasty with success; only one patient had a risk factor (nephrotic syndrome), and seven had positive microbiological culture.<sup>3</sup> Patients with ONFH and worsened hip joint pain besides unexplained elevated C-Reactive protein and/or erythrocyte sedimentation rate, have a high suspicion index of a hip SA development.<sup>3</sup> Sharoff L and colleagues reviewed joint infections and stressed: surgery for septic arthritis and prosthetic joint infections; joint aspiration only for diagnosis; and antibiotics for treatment.<sup>4</sup> They also cited the incidence of SA (2 to 6/100 000 population, the post-arthroscopy infections rate (0.5 to 2%), the post-injection infections rate ranging between 0.005 and 0.0002%; and the prevalence of prosthetic joint infections after the primary hip replacement from 0.5% to 3%.<sup>4</sup> Major points were multidisciplinary assistance to improve the outcomes; and risk factors including age, joint inflammation, intravenous drugs, immunosuppression, alcohol or drug abuse, diabetes, joint injection or prostheses, avascular necrosis, skin infections, or catheters.<sup>4</sup> Zhang J and colleagues reviewed findings from Gram stains in 408 joint aspirates from 2015 to 2021 in a trauma service in England, UK, and detected 30.4% sensitivity and 97.6% specificity.<sup>5</sup> Positive cultures were associated with prosthetic joints, antecedent joint infections, arthritis, arterial hypertension, and diabetes mellitus; false negatives were related to antibiotic therapy; the authors highlighted the limited initial sensitivity and caution to interpret negative results.<sup>5</sup>

Diagnostic suspicion increases with case reports.

#### Afiliación Institucional:

<sup>1</sup>Armed Forces Hospital, and Catholic University of Brasília-DF, Brazil. vitorinomodesto@gmail.com.

 0000-0002-7033-6074

<sup>2</sup>Advanced General Surgery of IAMSPE, São Paulo-SP, Brazil. listersantos@hotmail.com

 0000-0003-4647-4044

<sup>3</sup>Faculty of the Americas (FAM), São Paulo-SP, Brazil. tedeschia12@gmail.com

 0009-0008-4378-4120

**Keywords:** Diagnosis; Hip; Management; Septic arthritis.

**Ethical Statement:** In writing the manuscript, the authors followed the policy of the Committee on Publication Ethics (COPE).

**Funding sources:** This study did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Conflict of Interest Disclosures:** The authors have no conflicts of interest to disclaim.

✉ [vitorinomodesto@gmail.com](mailto:vitorinomodesto@gmail.com)



Esta obra está bajo una licencia internacional: Creative Commons Atribución-NoComercial-CompartirIgual 4.0.

---

## References

---

1. Delgadillo-Cañón ED, Vargas-Rodríguez LJ, Hernández-Espitia CA. Artritis séptica de cadera secundaria a absceso de psoas ilíaco. *Acta Méd Costarric*. 2024; 66: 1-3. DOI: [10.51481/amc.v66i1.1324](https://doi.org/10.51481/amc.v66i1.1324)
2. Cools J, Ghijselings S, Ruythooren F, Jentjens S, Noppe N, Metsemakers WJ, et al. Advanced imaging shows extra-articular abscesses in two out of three adult patients with septic arthritis of the native hip joint. *J Bone Jt Infect*. 2024; 9: 27-35. DOI: [10.5194/jbji-9-27-2024](https://doi.org/10.5194/jbji-9-27-2024)
3. Li M, Shao Z, Zhu H, Zhang Y. The diagnosis and treatment of septic hip with osteonecrosis of the femoral head. *J Orthop Surg Res*. 2024; 19: 46. DOI: [10.1186/s13018-023-04518-6](https://doi.org/10.1186/s13018-023-04518-6)
4. Sharoff L, Bowditch M, Morgan-Jones R. Management of septic arthritis and prosthetic joint infection. *Br J Hosp Med (Lond)*. 2024; 85: 1-9. DOI: [10.12968/hmed.2023.0219](https://doi.org/10.12968/hmed.2023.0219)
5. Zhang J, Stevenson A, Zhou AK, Khan F, Geetala R, Krkovic M. The accuracy and diagnostic value of gram staining joint aspirates in suspected joint infections. *Hip Int*. 2024; 34: 546-552. DOI: [10.1177/11207000241230927](https://doi.org/10.1177/11207000241230927)