

# ***Giardia lamblia* Reactive Arthritis Mimicking Acute Periprosthetic Knee Infection: A Case Report**

## ***Background:***

The difficulty in diagnosing Periprosthetic joint infection (PJI) is exacerbated by the more varied presentation of PJI and the lower synovial fluid WBC count thresholds applied when a prosthesis is present. Multiple reports have described pseudosepsis after total knee arthroplasty (TKA) due to gout or pseudogout. Further confusing the picture, periprosthetic infection also frequently coexists with crystalline arthropathy. Our review of the literature revealed no reports describing reactive arthritis (ReA) mimicking acute infection in the setting of previous TKA. In this case report, we describe a pseudo-periprosthetic infection of a well-functioning TKA secondary to ReA in the setting of *Giardia lamblia* gastroenteritis.

## ***Case:***

A healthy 49-year-old man with a well-functioning total knee replacement developed a painful swollen knee. The erythrocyte sedimentation rate was 12 mm/hour, and C-reactive protein was 20.3 mg/L. Aspiration revealed 24,440 white blood cells and 5% neutrophils. His 2018 International Consensus Meeting (ICM) definition score of 5 met criteria for “possibly infected.” He was diagnosed with ReA secondary to *Giardia lamblia*, mimicking acute periprosthetic infection. He was successfully treated with a 10-week course of multiple oral antiparasitic medications.

## ***Conclusion:***

Systemic parasitic infectious ReA can mimic acute infection in the presence of total knee arthroplasty. Careful application of the 2018 ICM criteria can be critical for workup and the treatment of suspected periprosthetic infection.