

## Diffuse Large B Cell Lymphoma of the knee after joint replacement: an underestimated diagnosis

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### Background

Non-Hodgkin lymphoma (NHL) is a group of malignant neoplasms originating from lymphoid tissues, mostly from lymph nodes; extranodal origin is rare. Occurrence of primary NHL of joints in patients with orthopaedic metallic implants is increasing, although only few cases after knee arthroplasty are reported 1 .

### Case history

We describe the case of a 62-year-old man who ha presented to the emergency department complaining of left knee pain and swelling. He was injured in a road accident 18 years ago and underwent a distal femour resection with implant of metallic prosthesis. From that moment on, he started to suffer from chronic osteoarthritis; several arthroplasty revisions were performed. Admission blood tests resulted in no evidence of systemic infection. RX and CT showed abnormal flogistic tissue within the joint. Coltural exams on joint fluid were negative. Surgical debridement and synovia biopsy were performed; histological examination demonstrated

diffuse large B cell lymphoma (DLBCL), ABC subtype.

### Discussion

Although there are still not sufficient epidemiological data to relate metallic prosthesis to local cancer, metallic ions that could be released by corrosion of the prosthesis within the synovial space are known to be carcinogenic<sup>1</sup>. Furthermore, chronic inflammation could be involved in the development of neoplasm. We want to highlight that, in case of signs and symptoms suggestive of chronic recurrent osteoarthritis after arthroplasty, less common alternative diagnosis should be considered and open biopsy should be performed.

### References

1. Chaudhry MS, Mather H, Marks A, Naresh K (2011) diffuse large B cell lymphoma complicating total knee arthroplasty: case report and literature review of the association of diffuse large B cell lymphoma with joint replacement. *Acta Haematol* 126: 141-146.