

Unusual Origin of Anemia With Gluteus Red Spots

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To the Editor

A 62-year-old woman presented with a new history of dizziness, fatigue, scant red gluteal spots and microcytic anemia of 9.9 g/dL. One year and 8 months ago, she underwent total hip replacement with successful rehabilitation. On admission, pallor of skin and red spots of gluteus region on the operation side were seen (Fig. 1). Physical examination of internal organs was unremarkable. Both hip joint motions were within normal limits. Gastro- and colonoscopy did not clarify any origin of anemia. Total body CT showed synovial mass around a hip prosthesis. MRI showed metal-on-metal hip joint transplant with moderate amount of synovial fluid and extensive synovial mass distributed around the joint to trochanter pushing back gluteus maximus. Reactive lymphadenopathy was seen along to iliac and groin areas. Final needle biopsy of the periarticular mass was negative for acid fast, non-acid fast bacteria and malignancy and revealed extensive inflammation. All metal implants, and metal-on-metal in particular, corrode and cause a release of metal ions. Chromium, cobalt ($N < 0.25 \mu\text{g/L}$, patient $15 \mu\text{g/L}$) and molybdenum were implicated in development of aseptic lymphocytic vasculitis associated lesions (ALVAL) [1]. The last was proposed as a hypothesis and as a reason of anemia and rash without prosthetic failure [2]. Next step was operative revision. Synovial mass was removed and showed typical lymphocytic vasculitis inflammatory tissue (Fig. 2) [3]. The metal-on-metal prosthesis was replaced to ceramic-to-ceramic device. Rapid recovery, disappearance of vasculitis and restoration of hemoglobin (12.3 g/dL) followed. Anemia was due to chronic inflammation and the metal mediated toxicity.



Figure 1. Scarce gluteus red spots on the operation side are seen indicating distribution of synovial inflammation.

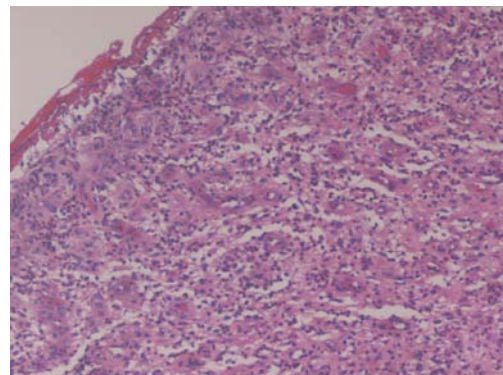


Figure 2. Fibrous and granulation tissue with marked inflammation and fibrin deposition on the surface. Lymphocytic vasculitis of small vessels is seen. Hematoxylin and eosin, $\times 200$.

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Conflict of Interests

None.

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