



Clinical rheumatology in images

Exostosis, a complication of transiliac bone biopsy

Exostosis, una complicación de la biopsia ósea de cresta ilíaca

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Case report

Forty-year-old female who underwent liver transplantation due to cirrhosis of the liver as a result of chronic hepatitis C infection. The patient underwent a bone biopsy of both iliac crests with a 7 mm Bordier's trochar as part of a study protocol of metabolic bone disease associated with transplant.¹

Two years after the transplant, the patient consulted due to nocturnal pain in the right iliac crest, which was radiated in the area of the trochanter and the ipsilateral lower limb. Physical examination revealed pain only on palpation of the iliac crest, with mobility of the hip conserved. An X-ray of the pelvis was performed and revealed exostosis of the right iliac crest (Figure 1), where the bone biopsy had been performed, an abnormality that had not been observed on the X-ray prior to the transplant (Figure 2).

The pain improved with analgesic treatment and no subsequent complications were seen.

Discussion

Transiliac bone biopsy, without decalcification of the sample, is an invasive procedure used for many years to study metabolic bone disease.^{2,3} The imaging techniques developed in recent years enable the study of bone structure without any loss of blood; however, they cannot substitute the bone biopsy to study mineralization and bone remodelling. There are very few adverse effects associated with bone biopsies and these are mild in most cases. The most common complications are pain at the biopsy site, bruising, and bleeding.⁴⁻⁶ There have been occasional reports of fractures, vascular and nerve injury, and infection.⁷

Exostosis following bone biopsy is an uncommon finding. Murphy WA et al reported the presence of exostosis in 2 patients in whom an X-ray had been performed after a bone marrow biopsy.⁸ The



Figure 1. X-ray of the pelvis performed 2 years after the bone biopsy and revealing the existence of exostosis (arrow).

development of this complication has been related to a history of trauma and bleeding that may trigger a local periosteal reaction.⁸⁻¹⁰ It may occur more often, but goes unnoticed, since X-rays are not routinely performed after bone biopsy.

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Figure 2. X-ray of the pelvis without any remarkable alterations, performed prior to the liver transplant.

Persistent pain at the site of a bone biopsy should be grounds to suspect the possibility of exostosis.

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