Case presentation

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A 36-year-old patient with no previous trauma or relevant clinical history presented with sudden and progressive pain in the right hip, which increased when standing or walking.

Physical examination reveals pain in the groin and C-sign pain in the lateral area, with a slight, barely limited increase in its range of motion.

A frontal radiograph of the pelvis and non-contrast MRI are ordered.

FINDINGS AND INTERPRETATION OF IMAGING STUDIES
Radiographic imaging shows diffuse osteopenia affecting the right femoral neck and head. (Figure 1).

Figure 1. Frontal radiograph of the pelvis. Diffuse osteopenia affecting the right femoral neck and head is observed.
In the MRI, the right femoral head and neck show high signal intensity in T2-weighted sequences and low signal intensity in T1-weighted sequences, both in axial (Figure 2) and coronal (Figure 3) images. Furthermore, joint effusion can be seen in the T2-weighted sequences. Signal intensity of the left hip joint is normal.

**Figure 2.** MRI T1-weighted and T2-weighted axial sequences. The right femoral head and neck show high signal intensity in T2-weighted sequences and low signal intensity in T1-weighted sequences, suggesting bone edema. Furthermore, there is joint effusion in the right hip; joint space is preserved.

**Figure 3.** MRI T1-weighted and T2-weighted coronal sequences. The right femoral head and neck show high signal intensity in T2-weighted sequences and low signal intensity in T1-weighted sequences, suggesting bone edema. Furthermore, there is joint effusion in the right hip; joint space is preserved.