

Lumbar synovial cyst calcification after facet joint steroid injection

Louis Boissière,¹ Florent Valour,² Julien Rigal,¹ Christian Soderlund³

¹Department of Orthopedic Spinal Surgery, Bordeaux Pellegrin Hospital, Bordeaux, France

²Department of Internal Medicine, French Polynesia Hospital Center, Piraé, French Polynesia

³Department of Orthopedic Surgery, French Polynesia Hospital Center, Piraé, French Polynesia

Correspondence to

Florent Valour,
florent.valour@chu-lyon.fr

DESCRIPTION

A 57-year-old man presented symptomatic L5 right sciatica since 2 years, becoming resistant to usual analgesics. Non-contrast CT scan of the lumbar spine disclosed an intraspinal synovial cyst with the same intensity as the intervertebral disc (figure 1A, arrow). A CT-scan-guided intra-articular steroid injection was performed (one injection of 3.75 mg of cortivazol, equivalent to 62.5 mg of prednisone; figure 1B), allowing a moderate improvement of the symptomatology after 1 month. However, the radiculopathy worsened after 6 months. A second lumbar spine CT scan revealed a cyst evolution, which had entirely calcified, leading to a major stenosis of the lateral recess (figure 1C,D, arrows). A surgical L4-L5 posterior decompression and fusion was proposed to the patient. At 1 year follow-up, a complete relief of radicular pain was obtained.

Synovial cyst is a differential diagnosis of disc herniation in a radicular pain evaluation. Facet joint sustained-release steroid injection, the main non-surgical treatment of vertebral synovial cysts, is known to be safe and viable, with a reported

favourable outcome rate of 40% after 6 months.¹ If a thin calcified rim of the cyst can occur, no modification is generally observed.² This case presents an unusual complication of this frequent procedure, leading to a full calcification of the cyst 6 months after the injection, leaving no other possibility than surgery to release the nerve root compression. Moreover, if some authors propose to manage facet joint cysts by simple resection,³ the complete calcification of the cyst requires achieving a complete arthroctomy associated with lumbar spine fusion.

Learning points

- ▶ Synovial cyst is a rare cause of radicular pain, and a differential diagnosis of herniated disc.
- ▶ Facet joint sustained-release steroid injection, the main non-surgical management of synovial cysts, can rarely lead to full cyst calcification, leaving no other possibility than a complete arthroctomy associated with lumbar spine fusion.



Figure 1 CT scan showing a L4-L5 right synovial cyst (A) managed by facet joint slow releasing steroid injection (B) complicated by a full cyst calcification 6 months later (C and D).

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