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, Pirae, French Polynesia
3Department of Orthopedic Surgery, French Polynesia Hospital Center, Pirae, 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 arthrectomy 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 arthrectomy 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).
competing interests None.

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REFERENCES
