

# Lumbar juxtafacet cyst case reports

A patient who had spontaneous resolution of a right L3/4 lumbar juxtafacet cyst (LJFC); and in whom, 2.5 years after regression of the previous cyst, a new contralateral L3/4 LJFC developed. Furthermore, with an extensive review, Sarica and Kucuk discussed the selection criteria for patients for conservative treatment. A 44-year woman presented with right leg pain for two months. Neurological examination findings were normal; however, hypoesthesia was observed in the right L4. There was no medical history of any trauma or a specific condition. Magnetic resonance imaging (MRI) revealed a right L3/4 LJFC and L4/5 spondylolysis. The patient refused surgical treatment and was referred to a physical therapy department. A non-steroidal anti-inflammatory drug was administered for four weeks. At two months' follow-up, her leg pain was relieved. After 2.5 years, she was readmitted due to radiating left leg pain. The MRI showed regression of the previous right L3/4 LJFC and a newly formed left L3/4 LJFC. Thus, cyst excision and posterior fusion were performed. The symptoms were resolved immediately following the surgery and the patient continued to be symptom-free at a one-year follow-up. In the setting of significant [instability](#), conservative treatment for LJFCs can still be beneficial; however, its role in preventing the recurrence of LJFCs may be inadequate. In such patients, early surgical correction of instability may result in better long-term outcomes <sup>1)</sup>.

## 2018

An 87-year-old man presented with severe dull pain in the right anterior thigh. Lumbar magnetic resonance imaging revealed disc extrusion over the central canal zone at the L2-L3 and L4-L5 levels and an ovoid lesion with a hyperintense center plus a hypointense rim on the T2-weighted image. The lesion was located over the medial side of the right juxtafacet region at the L2-L3 level, causing thecal sac compression. After the operation, the visual analog pain scale improved with a value of 0-1/10, and straight leg raise test was negative. Microscopically, cystic fibrous tissue with focal myxoid degeneration, fibrin exudate, and scant synovial-like lining was observed. These findings were consistent with clinical synovial cyst. Three months later, lumbar magnetic resonance imaging was performed, and no evidence of cyst was disclosed. Lumbar computed tomography revealed the upper part of left L2-L3 facet joint was removed. The patient did not report any radicular pain during the 6-month follow-up period.

Percutaneous endoscopic lumbar surgery could be a new option for the management of lumbar synovial cysts, especially when general anesthesia is not appropriate for the patient <sup>2)</sup>.

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Spontaneous resolution of a lumbar juxtafacet cyst - case report <sup>3)</sup>.

## 2015

A patient with a juxta-facet cyst and conjoined nerve roots. A 66-year-old man presented with left leg pain from the past 4 months. Neurological examinations revealed L5 and S1 radiculopathy on the left side. Magnetic resonance imaging(MRI)detected a mass lesion located near the left intervertebral joint at the level of L5/S1 and canal stenosis at the level of L3/L4. A juxta-facet cyst was diagnosed by arthrography. We performed a curettage and resection of the mass, posterior lumbar interbody fusion

at the level of L5/S1, and laminectomy at the level of L3/L4. Conjoined left L5/S1 nerve roots were observed during surgery. The patient recovered from the symptoms of L5 and S1 radiculopathy immediately after surgery. Postoperative review of the preoperative computed tomography images revealed bony abnormality in the L5/S1 joint. The authors speculate that the bony abnormality may be associated with the development of conjoined nerve roots and the juxta-facet cyst <sup>4)</sup>.

## 2014

A 57-year-old woman presented with a 2-year history of progressively worsening lower back pain, left leg pain, weakness, and paresthesias. Imaging showed a giant, completely calcified mass arising from the left L5-S1 facet joint, with coexisting grade I L5 on S1 anterolisthesis. The patient was treated with laminectomy, excision of the mass, and L5-S1 fixation and fusion.

The patient had an uncomplicated postoperative course and had complete resolution of her symptoms as of 1-year follow-up.

When presented with a solid-appearing, calcified mass arising from the facet joint, a completely calcified juxtafacet cyst should be considered as part of the differential diagnosis <sup>5)</sup>.

## 1992

A case of a lumbar spinal extradural cyst is reported. An accurate preoperative diagnosis was made using magnetic resonance imaging. Characteristic findings on magnetic resonance imaging obviate the need for any additional radiological studies. The clinical features, radiological findings, and pathogenesis of these lesions are discussed <sup>6)</sup>.

## 1987

A patient with posttraumatic lumbar radicular paresthesias is presented. The preoperative diagnosis of an epidural synovial cyst was considered. At surgery, an epidural synovial microcystic mass was found emanating from a distracted L4-5 facet joint and dissecting into the layers of the ligamentum flavum. A brief review of the condition is presented <sup>7)</sup>.

## 1985

A case of intraspinal synovial cyst with sciatic pain diagnosed by CT, that showed spontaneous resolution and clinical improvement with medical treatment and comment on another two cases of this unusual entity discovered among over 1500 spinal CT explorations <sup>8)</sup>.

<sup>1)</sup>

Sarica C, Kucuk F. Contralateral Recurrence of a Lumbar Juxtafacet Cyst Following Spontaneous Resolution. *J Coll Physicians Surg Pak*. 2022 Apr;32(4):S85-S88. doi: 10.29271/jcpsp.2022.Supp1.S85. PMID: 35633023.

<sup>2)</sup>

Wu HH, Chu L, Zhu Y, Cheng CY, Chen CM. Percutaneous Endoscopic Lumbar Surgery via the

Transfacet Approach for Lumbar Synovial Cyst. World Neurosurg. 2018 Aug;116:35-39. doi: 10.1016/j.wneu.2018.05.018. Epub 2018 May 31. PubMed PMID: 29758372.

3)

Downs E, Marshman LA. Spontaneous resolution of a lumbar juxtafacet cyst - case report. World Neurosurg. 2018 May 7. pii: S1878-8750(18)30917-3. doi: 10.1016/j.wneu.2018.04.197. [Epub ahead of print] PubMed PMID: 29747018.

4)

Matsumoto N, Sasaki N, Fukuda M, Ueda S, Hoshimaru M. [Juxta-facet Cyst Associated with Conjoined Nerve Roots:A Case Report]. No Shinkei Geka. 2015 Jun;43(6):539-43. doi: 10.11477/mf.1436203068. Japanese. PubMed PMID: 26015382.

5)

Huang KT, Owens TR, Wang TS, Moreno JR, Bagley JH, Bagley CA. Giant, completely calcified lumbar juxtafacet cyst: report of an unusual case. Global Spine J. 2014 Aug;4(3):175-8. doi: 10.1055/s-0033-1363591. Epub 2013 Dec 19. PubMed PMID: 25083359; PubMed Central PMCID: PMC4111943.

6)

Heary RF, Stellar S, Fobben ES. Preoperative diagnosis of an extradural cyst arising from a spinal facet joint: case report. Neurosurgery. 1992 Mar;30(3):415-8. Review. PubMed PMID: 1535693.

7)

Franck JL, King RB, Petro GR, Kanzer MD. A posttraumatic lumbar spinal synovial cyst. Case report. J Neurosurg. 1987 Feb;66(2):293-6. PubMed PMID: 3806212.

8)

Mercader J, Muñoz Gomez J, Cardenal C. Intraspinal synovial cyst: diagnosis by CT. Follow-up and spontaneous remission. Neuroradiology. 1985;27(4):346-8. PubMed PMID: 4047392.

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