

Juxtafacet cyst

The etiology is unknown (possibilities include: synovial fluid extrusion in collagenous connective tissue from the joint capsule, latent growth of a developmental rest, myxoid degeneration, and cyst formation in collagenous connective tissue...), increased motion seems to have a role in many cysts, and the role of trauma in the pathogenesis is debated ^{1) 2)}. but probably plays a role in a small number ($\approx 14\%$) ³⁾.

Types

[Synovial cyst](#).

[Ganglion cyst](#).

Distinction of these types is difficult without histology and is clinically unimportant ⁴⁾.

They may occur anywhere in cervical, thoracic and in the lumbar spine:

see [Cervical juxtafacet cyst](#).

see [Thoracic juxtafacet cyst](#).

see [Lumbar juxtafacet cyst](#).

Pathology

Cyst walls are composed of fibrous connective tissue of varying thickness and cellularity. There is usually no signs of infection or inflammation. There may be a synovial lining ⁵⁾ ([synovial cyst](#)) or it may be absent ⁶⁾ ([ganglion cyst](#)).

The distinction between the two may be difficult ⁷⁾ possibly owing in part the fact that fibroblasts in ganglion cysts may form an incomplete synovial-like lining ⁸⁾.

Proliferation of small venules is seen in the connective tissue. Hemosiderin staining may be present, and may or may not be associated with a history of trauma ⁹⁾.

Complications

Hemorrhage

Hemorrhage from a ganglion cyst is rare and the rate of hemorrhagic incidence is less than 10%.

Although the suspected causal factors such as anticoagulation therapy, trauma, and the presence of a

vascular anomaly has been proposed, the etiology of the hemorrhage from the juxtafacet cysts is still unclear.

The similar conditions differently called a [ligamentum flavum hematoma](#), juxtafacet cyst hematoma, hemorrhagic synovial cyst and facet apoplexy have been reported ¹⁰⁾.

Case series

2016

A retrospective study evaluates patients who underwent surgical resection of juxtafacet cysts without concomitant fusion from 2002 to 2013 with a minimum follow-up of one year.

Complete follow-up is available in 74 patients. Mean follow-up in all 74 patients was 69 ± 34 months (range, 14-140 months). Mean ODI was 14.9%. 68 patients (91.9%) were pleased with the results and would undergo surgery again. Three patients (4.1%) underwent secondary resection because of cyst recurrence at the same site. Four patients (5.4%) needed secondary fusion.

In patients without evident clinical and radiological criteria of instability we regard surgical resection of juxtafacet cysts without concomitant fusion as adequate primary treatment due to good outcome and low incidence of secondary symptomatic instability ¹¹⁾.

1994

Freidberg et al. report a series of 26 patients with cysts, including 1 cervical, 2 thoracic, and 23 lumbar. Complaints at the time of admission and findings were similar to those associated with other epidural lesions at the same locations. The surgical technique is similar to that for other spinal lesions, with a wide exposure to enable a clear view of the cyst and surrounding structures, and is governed by imaging studies. Patients with cervical and thoracic lumbar cysts were free of symptoms and signs postoperatively. Of the 23 patients with lumbar cysts, 15 were free of symptoms after an operation, 7 had symptomatic improvement but had some pain and neurological findings, and 1 patient had no improvement. Computed tomography and magnetic resonance imaging permit accurate preoperative evaluation ¹²⁾.

1988

13 patients with synovial or ganglion cysts of the spinal facet joints causing nerve root compression. These cysts were found in both the cervical and the lumbar spine, and the anatomical location of each cyst corresponded to the patient's signs and symptoms. In no case was there evidence of intervertebral disc abnormality found at operation. The patients ranged from 49 to 77 years of age and included 4 men and 9 women. Radiographic evidence of facet degenerative change and degenerative spondylolisthesis was frequently but not invariably noted. The extradural defects defined with positive contrast myelography or postmyelography computed tomographic scanning were usually posterior or posterolateral to the common dural sac and were misinterpreted as extruded discs in the majority of cases. Treatment consisted of laminectomy and surgical excision of cysts. All patients reported improvement or resolution of their presenting symptoms ¹³⁾.

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