

RESEARCH ARTICLE

Case Report: Cervical Synovial Cyst

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Abstract

Cervical synovial cysts are unusual extradural lesions that can cause radiculopathy or spinal cord compression. This case report presents a patient with a cervical synovial cyst and discusses the clinical, radiological, and surgical features of these rare lesions. A 77-year-old male patient presented with a history of progressive gait disturbance, imbalance, and back pain. Cervical magnetic resonance imaging revealed a spherical, extradural lesion adjacent to the C4-C5 facet joints. The radiology department reported an 11-mm synovial cyst obliterating the subarachnoid space and indenting from the right posterolateral. Laminectomy was performed, and an extradural cystic mass originating from the degenerated facet joint was detected at C4-5, compressing the medulla at that level. Since the lesion was adherent to the cord, first the integrity of the lesion wall was disrupted, and then the lesion was excised. The postoperative period was uneventful, and the patient's neurological condition rapidly improved. It is important to include synovial cysts in the differential diagnosis of any extradural spinal lesions considering that these cysts have important implications for surgical management.

Key Words: Cervical spine, faset joint, juxta cyst, synovial cyst

Olgu Sunumu: Servikal Sinovyal Kist

Özet

Servikal sinovyal kistler, radikülopati veya omurilik kompresyonuna neden olabilen sıra dışı ekstradural lezyonlardır. Bu yazının amacı bir servikal sinovyal kist olgusunu tanımlamak ve bu nadir lezyonların klinik, radyolojik ve cerrahi özelliklerini tartışmaktır. 77 yaşında erkek hasta, ilerleyici yürüme bozukluğu, dengesizlik ve sırt ağrısı öyküsü ile başvurdu. Servikal manyetik rezonans görüntüleme, C4-C5 faset eklemlerine bitişik küresel, ekstradural bir lezyon saptadı. Subaraknoid boşluk oblitere eden ve sağ posterolateralden indentasyon gösteren 11 mm lik sinovyal cist olduğu radyoloji bölümü tarafından rapor edildi. Bir laminektomi yapıldı ve C4-5'da dejenere faset ekleminde kaynaklanan ekstradural kistik bir kitle tespit edildi. O seviyede medullayı sıkıştırıyordu. Lezyon korda yapışık olduğu için duvarı bozularak eksize edildi. Postoperatif dönem sorunsuz geçti ve hastanın nörolojik durumu hızla düzeldi.

Herhangi bir ekstradural spinal lezyon için ayırıcı tanıda sinovyal kistlerin dahil edilmesi önemlidir, çünkü bu kistlerin cerrahi tedavi için önemli etkileri vardır.

Anahtar Kelimeler: Servikal omurga, juxta faset kisti, sinovyal kist.

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INTRODUCTION

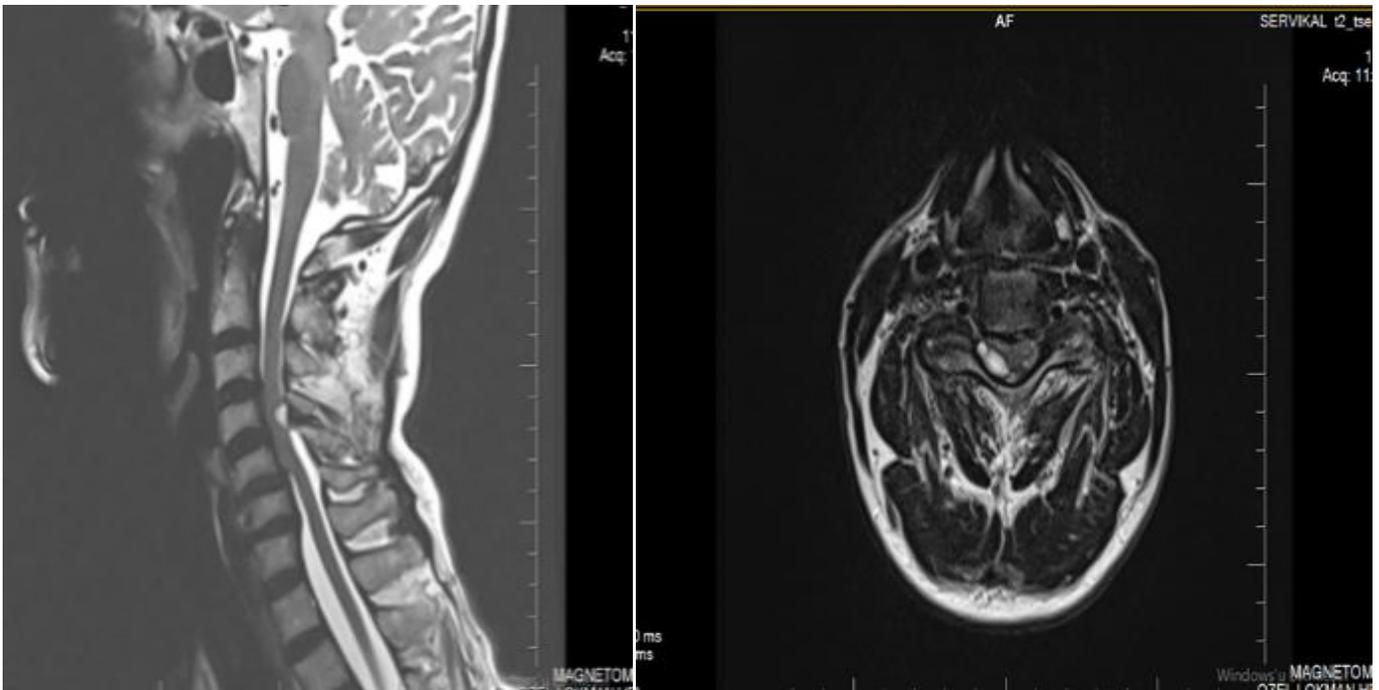
Synovial cysts are common, especially in the wrist and hand (6). The localization of synovial cysts in the spine is relatively rare, and cervical synovial cysts are even rarer. With the increasing use of magnetic resonance imaging, the diagnosis of synovial cysts has increased. Symptoms may include pain, radiculopathy, or myelopathy. This is

the author's first case of cervical synovial cyst. The patient was a 77-year-old man with a symptomatic synovial cyst at the C4-5 level.

CASE

The patient first presented to the emergency department with the complaints of back pain, imbalance, and gait disturbance for three to four days. No pathology was detected on diffusion magnetic resonance imaging (MRI), and therefore the patient was referred to the neurology outpatient

upper extremity and brisk in the lower extremity and ataxic gait was observed. The results of the cerebellar tests were normal, and the muscle strength in the lower extremity was complete. No abnormal electrophysiological finding was obtained from electromyography. Based on these physical examination findings, the possibility of a cervical pathology was considered, and cervical MRI was taken. On MRI, the appearance of the entity was consistent with a synovial cyst in the



clinic. In the examination performed in that clinic, a 4/5 loss of strength was detected in the grip of the right hand in the upper extremity. Deep tendon reflexes were determined to be hypoactive in the

facet joint at the C4-5 level, and therefore the patient was referred to our clinic for consultation (Figure 1).

Figure 1. Preoperative MRI

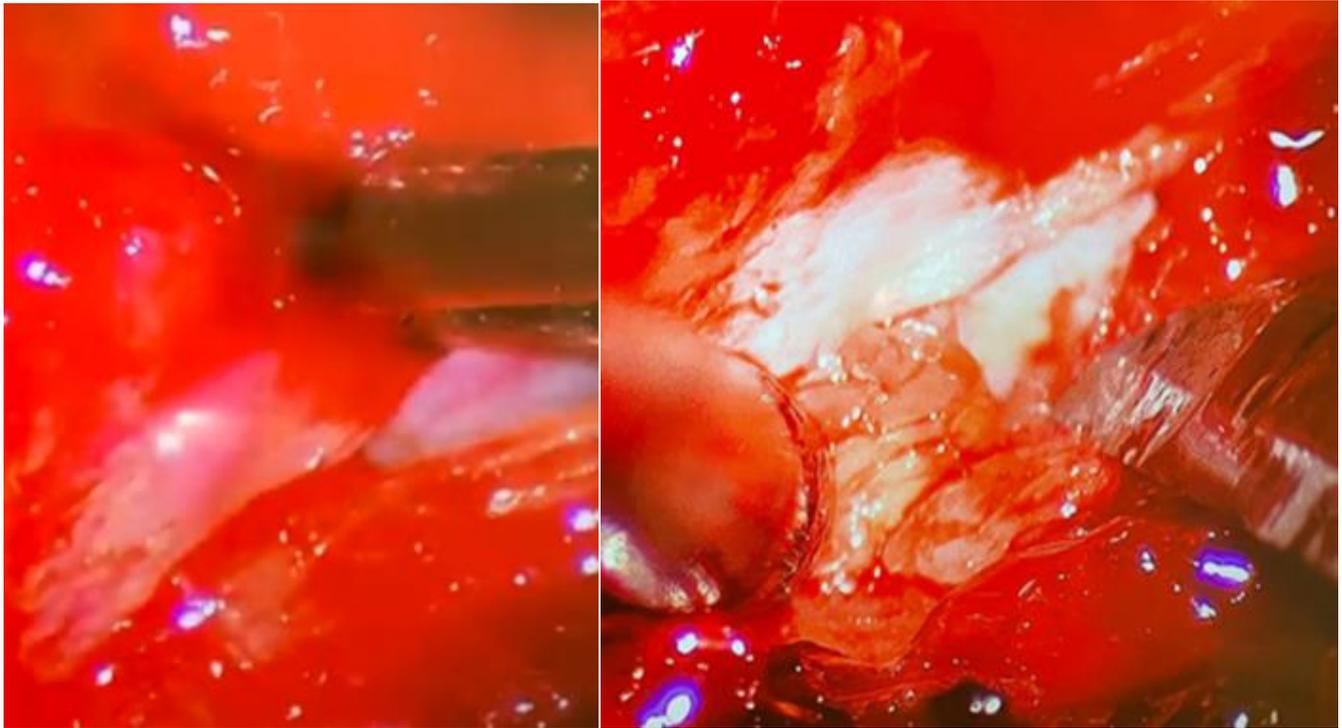


Figure 2 .Intraoperative image

After the preoperative consultations and examinations were completed, the patient underwent surgery at the by the Neurosurgery Clinic of Lokman Hekim University. During the operation, a skin incision between C3 and C7 was made, the cervical lamina was reached, the distance was confirmed under scopi and C4-5 right laminectomy was performed. Since the lesion was adhered to the cord, it could not be separated (Figure 2). The cyst wall was cut with a scalpel no. 15, and a gray, thick, viscous fluid was drained. The wall of the cyst was completely opened. The cord became visible from the lower part. The operation was terminated after observing that the cord was decompressed. Postoperatively, there was a prominent decrease in the patient's complaints and improvement in his gait, and he

was discharged from the hospital two days after the operation.

DISCUSSION

Synovial cysts are most common in the wrists and hands but are rarer in the spine. Since they were first described by Von Gruker in 1880, more than 200 cases of lumbar degenerative synovial cysts have been reported in the literature (5). However, the natural course and mechanism of the formation of intraspinal synovial cysts are not yet fully understood. Evidence indicates the presence of degenerative processes that produce hyperplasia and fluid exudation in the facet joint, resulting in the formation of a cyst. In most cases, cysts tend to enlarge (4). Only 28 cervical synovial cysts have been described in the literature (2). Two-thirds of reported cases are at the C1-2 level, which is usually associated with rheumatoid arthritis. The

remaining described cysts are mostly at the cervicothoracic junction. The mean age of patients with intraspinal cysts has been reported to be 60.8 years. Symptoms include pain, radiculopathy, or myelopathy (3). Most reported cases have been treated surgically. One case report described the spontaneous resolution of a cervical synovial cyst (1). There are cases of computer tomography-guided percutaneous aspiration/injection attempts reported in the lumbar spine but not in the cervical spine (7). We did not find any reports on cyst recurrence after surgical resection in the literature.

In our research, the prevalence of visual disability was 82.8 per ten thousand, the prevalence of low vision was 71.0 per ten thousand, and the prevalence of blindness was 11.8 per ten thousand, and it was found that these rates increased with age.

The first five causes of visual disability are respectively; cataract, age-related macular degeneration, genetic-hereditary causes, refractive error, and accidents and, cataract is the most important cause of blindness and low vision.

It has been revealed that most of the causes of visual disability are preventable and treatable causes. To prevent or reduce visual disability, field scans and early diagnosis and treatment services must be extended.

For cataract treatment (surgery), resources should be increased, and services should be provided specially to underdeveloped regions.

Ethics Committee Approval: The consent form was filled out in participant.

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