



# Paraspinal Abscess after Percutaneous Adhesiolysis

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## ABSTRACT

Permanent pain after surgical approach for lumbar pathology may due to epidural scarring. However, surgical approach could not relieve the pain in all cases. Percutaneous adhesiolysis might be a valuable technique in managing chronic pain caused by epidural scarring. Following the percutaneous adhesiolysis, it has been reported that several complications such as dural puncture, intravascular injection, but abscess formation in the paraspinal muscles immediately after the adhesiolysis is the first case in literature.

**Key words:** Paraspinal abscess, pain, percutaneous adhesiolysis

## Perkutan Adenolizis Sonrası Paraspinal Apse

Lumbal bölge patolojisine cerrahi yaklaşım sonrası epidural skar oluşumuna bağlı olarak dirençli ağrı gelişebilir. Perkütan adezyonalizis epidural skara bağlı ağrının kontrol edilmesinde değerli bir teknik olabilir. Perkütan adezyonalizisten sonra dural punkture, intravasküler injeksiyon gibi bir çok komplikasyon bildirilmiş ancak adezyonalizis takiben paraspinal apse formasyonu literatürdeki ilk vakadır.

**Anahtar kelimeler:** Paraspinal Apse, Ağrı, Perkutan Adezyonalizis

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Low back pain is a common disorder leading to disability in daily functional activities. One of the most common reasons of low back pain is lumbar disc hernia that might be necessary surgical treatment. However, surgical approach could not relieve the pain in all cases. Permanent pain after surgical approach for lumbar pathology may due to epidural scarring. Percutaneous adhesiolysis might be a valuable technique in managing chronic, refractory low back and lower extremity pain caused by epidural scarring (1, 2).

A 29 year-old woman with low back and lower extremity pain secondary to unsuccessfully surgery of lumbar hernia of L2-L3 and L3-L4 discs, two years ago. She described her pain as severe on Visual Analogue Scale (VAS) and her Oswestry Disability Index 2.0 was 55%. The patient has also been underwent several therapeutic approaches, such as analgesic and anti-inflammatory drugs, physiotherapy, epidural steroid injections that all unsuccessful. Magnetic resonance imaging showed lumbar epidural fibrosis. Presacral area was prepared in an aseptic fashion. The patient underwent percutaneous epidural adhesiolysis with hypertonic sodium chloride solution via Racz's catheter placed by the guidance of fluoroscopy and verified the location by contrast medium (Omnipaque 300 Mg/10 ml, Yurtoğlu Pharma, Turkey). Before the procedure, low dose epidural local anesthetic administration (0.6 mg/h of levobupivacaine 0.5 % (Chirocaine®, Abbott, Istanbul, Turkey) by an elastomeric pump was started for the first three day in order to evaluate whether the pain relief can be achieved. At the end of the third day, she was become almost pain-free. Percutaneous adhesiolysis with 10 cc of hypertonic sodium chloride solution (10%) was applied via Racz's catheter in 30 minutes. One day later following the application, she readmitted with severe pain in the intervertebral space of L3-L4. She had fever 39.3 °C. Epidural abscess formation in the location of adhesiolysis was thought, since the increased levels of the inflammatory markers including erythrocyte sedimen-

tation rate, WBC and C-reactive protein. Racz's catheter was removed and for culture. High dosage of antibiotic, meropenem 1 gr IV (Meronem®, Astra Zeneca, Istanbul, Turkey) was started empirically. MRI showed a collection in the paraspinal muscle (35 mm x 40 mm in diameter) at the level of L3- L4 vertebra. Hemorrhagic aspirate was taken from the collection by the guidance of ultrasonography and sent for culture. Group a beta-hemolytic streptococci was produced from the aspirate, while the catheter and blood culture were negative. Antibiotic was completed to fourteen day. She was discharged as pain free completely.

Following the percutaneous adhesiolysis, it has been reported that several complications such as dural puncture, intravascular injection, reaction to hypertonic sodium chloride solution and epidural abscess (1, 2), but abscess formation in the paraspinal muscles immediately after the adhesiolysis is the first case according to our research in literature.

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