

DIFFERENTIAL DIAGNOSIS OF CICATRICAL ADHESIVE EPIDURITIS IN THE POSTOPERATIVE PERIOD

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ABSTRACT:

At present, one of the complex tasks of modern neurosurgery is the problem of differential diagnosis of cicatricial adhesive epiduritis and recurrent disc herniation in the late postoperative period. The studies have shown that the use of the STIR mode in MRI examination allows a more reliable distinction between epiduritis and recurrent disc herniation.

KEY WORDS: cicatricial adhesive epiduritis (ECE), clinical picture, diagnosis, recurrent hernia.

RELEVANCE:

In recent decades, there has been a significant development in spinal surgery. With the increase in the number of surgeries for osteochondrosis of the spine, the problem of differential diagnosis of cicatricial adhesive epiduritis and recurrent disc herniation of the lumbar spine becomes more and more urgent. According to literature data, especially often in 10–14% of patients, postoperative cicatricial adhesive epiduritis (RSE) is diagnosed.

MATERIALS AND METHODS:

A retrospective analysis of 237 patients with disc herniation of the lumbar spine who were operated on in the neurosurgical department of the Andijan branch of the RSCMPS from 2018

to 2020 was carried out. Of the total number of 27 (11.4%) patients, they returned to the neurosurgeon. The reasons for repeated treatment were persistent pain syndrome in the operated segment of the spine, irradiation of pain in the lower extremities, impaired sensitivity and limitation of movements in the spine. All patients underwent an MRI scan of the lumbar spine on a Byork apparatus of the ShenztenAnkeHigh-tech 1.0 T. Scanning was performed in sagittal and axial projections in the T1 and T2 sequences. For the differential diagnosis of cicatricial changes and recurrent disc herniation, a sequence with suppression of the signal from fat, STIR, was used.

RESULTS AND ITS DISCUSSION:

When re-applying complaints of patients, complicated by secondary stenosis of the spinal canal due to the development of cicatricial adhesive epiduritis, is lower back pain, radiating to one or both legs. Pains of the type of lumbodinia and sciatica have a remitting course. The pain is accompanied by dysesthesia, a feeling of heat or cold. Some patients have shooting pains in the legs, there is transient short-term weakness. With static loads, the limitation of the mobility of the spine, which is often observed in the morning, is determined. The horizontal or prone position increases the

pain syndrome. Symptoms of root tension (Lasegue, Wasserman, Neri) are absent or mild. When examining patients, asymmetric hypotrophy of the leg muscles, hyporeflexia, and hypesthesia in the innervation zone of the corresponding root involved in the process are noted. With local ESR at the level of the operated segment with root compression, a monoradicular syndrome is observed, which can be difficult to distinguish from posterolateral herniated intervertebral disc.

One of the methods of differential diagnosis of ESR is contrast-enhanced MRI, which allows one to reliably distinguish postoperative ESR from recurrent herniated discs.

MRI signs of cicatricial adhesive epiduritis: if the scar tissue is contrasted in a shorter period of time (after 5–10 minutes), then the herniated disc is contrasted after 30–45 minutes, compared to the scar tissue, the contrast intensity of the herniated disc is much less.

When performing CT or MRI studies in standard modes in patients with ESR, they have been described as recurrent disc herniation. But, despite this, during repeated surgical interventions in some patients, herniated intervertebral discs were not found. On the site of the previous operation, the development of the RSE was noted [1,2].

Based on this, it can be concluded that the surgeon's incorrect choice of the surgical access, the method, the volume of the planned surgical intervention and the methods of preventing RSE is the main reason for the unsuccessful results of the operation. A condition for the successful outcome of the planned surgery is the preoperative differential diagnosis between RSE and recurrent disc herniation.

For the purpose of preoperative differential diagnostics, all re-applied patients underwent an MRI study using a Byork apparatus of the ShenzenAnkeHigh-tech 1.0 T. Scanning was performed in sagittal and axial projections in

the T1 and T2 sequences. Sequential fat suppression (STIR) was applied. On MRI in the spinal canal, many small structures with a linear and irregular shape in the epidural space were identified with an MR signal of medium intensity in T1 and T2 modes. During the study, with suppression of the signal from fat on the side of the operation, the deformation of the dural sac due to compression by the cicatricial process was determined, and an increase in the intensity of the MR signal due to the inflammatory component was noted.

FINDINGS:

The use of sequential suppression of the signal from fat (STIR) allows differential diagnosis of RSE and recurrence of disc herniation, which allows a selective approach to the indications of surgery and the development of various methods for the prevention of compression cicatricial adhesive epiduritis.

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