

# Incidental durotomy during lumbar spine surgery

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## Introduction

Dural tear causing a cerebrospinal fluid (CSF) leak is a well-known risk of lumbar spinal procedures. The incidence of a CSF leak is higher in cases involving repeated operations and when the surgeon is less experienced; however, the overall outcome of the patient would not be adversely affected by the presence of a dural tear.

## Methods

A prospective evaluation was performed for all patients undergoing elective lumbar spine surgery between July 2007 and March 2009.

Inclusion criteria to enter the study were a diagnosis of symptomatic, posterior lumbar disc herniation (LDH) made by spine specialists (orthopaedic and neurosurgeons) in patients aged 18–65 years with pain and/or neurological signs in concordant distribution lasting at least over 6 weeks of appropriate conservative treatment consisting of systemic drugs for pain relief and/or epidural steroid administration. The purpose of the present study was to elucidate incidence, risk factors, and effect on outcome of an incidental dural lesion in lumbar disc herniation surgery.

## Results

In 1116 spinal procedures, 92 dural tears noted intraoperatively were repaired during the procedure by using the fat graft techniques described previously. There were 6 cases of postoperative CSF leak that was readily controlled by placement of additional skin sutures. 1116 patients were prospectively entered in the study, of whom 567 were male (47.2%) and 549 were female (49.3%), with a mean age of 43.2 years (range 22–65 years). In 4 cases pseudomeningocele occurred as a complication of extradural surgery.

## Conclusions

This prospective study has showed an incidence rate of 8.24% concerning dural lesion in lumbar disc herniation surgery. In patients with previous operations, the risk is doubled. Patients with previous surgery have more back pain prior to surgery and a lower quality of life. A conclusion that can be drawn from this study is that a dural lesion is a technical problem which should be solved during surgery and, if so, it bears no negative implications on the 1 year postoperative outcome.