Treatment of Medial/Mediolateral Lumbar Hernia by Videoendoscopic Endospine Technique

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Citation

Abstract

Introduction: The less invasive method of videoendoscopic endospine technique as described by Destandau is a probate method for the treatment of medial and mediolateral lumbar herniated disc. We assessed the clinical outcome of patients treated with this method. Furthermore we also evaluated to what degree blood serum inflammatory levels, as a parameter for tissue damage, increased compared to conventional open nucleotomy.

Patients and Methods: 127 (avg. age 33y; 17-61y) patients with an isolated lumbar disc herniation with sequestration were clinically assessed pre- (<1 day) as well as postoperatively (3-4 days and 6 weeks) using the VAS as well as the Oswestry Disability Index. All had only one segment surgery and were treated according to the method described by Destandau. Pre- and postoperative neurologic deficit was evaluated. Intraoperative adverse effects and postoperative complications were monitored. Average hospital stay as well as patient satisfaction was determined. Furthermore we compared the biochemical serum levels of C-reactive protein and leukocyte count of these patients treated by this method to 179 patients operated on in an open technique (partly microscopic, partly conventional). All patients received a single shot preoperative dose of antibiotics.

Results: 94% patients showed an improvement of their pain symptoms after surgery. Preoperative neurologic deficit (n=73) had resolved in 62% of patients at the postoperative assessment. 3 patients needed revision surgery within 6 weeks after initial surgery due to persistent pain and still visible sequester in the post-Op MRI. There were 5 dural tears, all of which were managed by a patch and caused no further clinical symptoms. In 4 cases a superficial infection was observed, of which only 1 needed surgical management. Deep infection was not seen. Postoperative CRP levels were significantly lower for patients treated with the endoscopic technique, compared to the open technique. Leukocyte count was slightly raised for the latter group, but this discrepancy was not significant.

Discussion: Compared to the literature, the less invasive method of videoendoscopic endospine technique for the treatment of slipped disc in the lumbar spine delivers favourable results. Apart from good clinical results, complication rates are equally as good as or better than conventional techniques of surgery. C-reactive protein levels suggest that iatrogenic trauma is lower than for other surgical methods and that this may be a reason for the more rapid re-convalescence of patients. A long term follow-up is necessary to determine the rate of post discectomy syndrome.

References
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