

# ORTHOSIS AS PROGNOSTIC INSTRUMENT IN LUMBAR FUSION: NO PREDICTIVE VALUE IN 50 CASES FOLLOWED PROSPECTIVELY.

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## **Abstract**

To evaluate pain relief in a lumbar orthosis as a predictor for good clinical results after solid fusion, all patients scheduled for such a surgical procedure were preoperatively encouraged to use an orthosis, soft or rigid, for 3 weeks. Grade of back pain relief as a percent using the orthosis was assessed by the patients and was registered before surgery. After surgery, at 1-year follow-up, patients with nonunion demonstrated radiographically were excluded from the series. Thus, 50 patients with solid fusion could be identified and followed for at least 2 years prospectively. At follow-up these 50 patients graded the pain relief induced by the fusion. In the preoperative corset test, 31 patients experienced significant back pain relief, meaning a reduction of at least 50%. No applicable correlation was found, however, between outcome in this corset test and the eventual clinical result expressed as improvement/no improvement after solid fusion. The two types of orthoses did not differ in this aspect. We conclude that the orthosis, rigid or soft, is not a useful instrument when selecting patients for lumbar fusion.

## **SELECTED QUOTATIONS**

"A certain pain-relieving effect using a lumbar orthosis has been verified particularly in patients with spondylolysis/spondylolisthesis (21). Even when it is prescribed nonspecifically for low back pain, the orthosis has a high rate of use, indicating some of the intended pain-relieving effect (1). (Pg. 284)

## **Patients and Methods**

"...all patients scheduled for fusion were encouraged to use a lumbar orthosis for at least 3 weeks with the intention to evaluate the pain-relieving effect." (Pg. 284)

"All patients studied, 28 men and 22 women, had intractable lumbar pain constituting indication for surgery. ...The diagnoses were spondylolysis/spondylolisthesis in 24 cases, degenerative disc/facet joint disorder in 11 cases, and pain postlaminectomy/decompression in 15 cases." (Pg. 285)

## **Results**

"In the preoperative corset test, 31 of the 50 patients experienced significant relief of back pain, defined as pain reduction estimated to be at least 50%." (Page 285)

## **Discussion**

"The main corset effect is rather a reduction of the gross motions of the trunk (9) with an obvious inability to fix one separate level, which makes the effect of immobilization very nonspecific.

During the corset test two-thirds of our patients experienced back pain relief, but this effect did not correlate to a good clinical result expressed as subjective improvement after solid fusion." (Pg.287)