

THE EFFECTIVENESS OF LUMBOSACRAL ORTHOSIS IN PATIENTS WITH CHRONIC DISCOGENIC LOW BACK PAIN

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Abstract

Lumbosacral orthosis is widely used for patients suffering from low back pain due to various conditions. The aim of this study was to evaluate the effectiveness of the elastic lumbosacral orthosis in patients with chronic discogenic low back pain. 30 consecutive patients presenting to physical medicine and rehabilitation outpatient clinic with chronic (>3 months),

discogenic low back pain were randomized into 3 groups (wearing an elastic lumbosacral orthosis for 1 week at least 8 hours a day, receiving standard physiotherapy or no treatment). They were evaluated at the level of pain (visual analogue scale), activities (Oswestry disability questionnaire and Rolland Morris questionnaire) and quality of life (SF-36). According to the first results (first 15 consecutive patients) no significant difference in any of our groups was observed.

INTRODUCTION

Lumbosacral orthosis is widely used for patients suffering from low back pain due to various conditions. There are many proposed mechanisms of action alleviating low back pain, like restriction of trunk motion, reduction in required back muscle forces, increase in abdominal pressure, proprioceptive stimuli and even local temperature elevation. The existing evidence regarding effectiveness of lumbosacral orthosis is conflicting. The objective of this study was to evaluate the effectiveness of the elastic lumbosacral orthosis in patients with chronic discogenic low back pain.

METHODS AND SUBJECTS

Methods

Subjects were randomized into 3 groups: wearing an elastic lumbosacral orthosis for 1 week at least 8 hours a day, receiving standard physiotherapy one week or no treatment. They were evaluated at the level of pain (visual analogue scale), activities (Oswestry disability questionnaire and Rolland Morris questionnaire) and quality of life (SF-36) three times: before treatment, immediately after treatment and 2 weeks after prescription of orthosis or therapy.

Subjects

30 consecutive patients presenting to physical medicine and rehabilitation outpatient clinic with chronic (>3 months) low

back pain with discogenic characteristics were included in the study.

RESULTS

The study is still in progress, but according to the first results (first 15 consecutive patients) no significant difference between the first and the second evaluation or the first and the last evaluation in any of our groups was observed, except in the group wearing a lumbosacral orthosis in respect of average pain intensity (between the first and the second evaluation), which got even worse ($p=0.043$).

DISCUSSION

The study is still in progress, so the results are inconclusive. The fact that none of the chosen outcome measures has not detected any significant improvement so far, supports the idea, that it is very difficult to improve the status of chronic pain patients with orthotic or physical therapy interventions only.

CONCLUSION

Results of the first analysis do not support any of the chosen interventions to be effective for patients with chronic discogenic low back pain.

References:

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