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Functional outcome of lumbar spine disorders treated with laminectomy

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Abstract
Patients with multiple levels of stenosis had somewhat less severe pain at baseline on the SF-36 bodily pain scale compared to one and two levels. Patients with single level stenosis were less likely to present with neurogenic claudication ($p<0.001$) and more likely to report dermatomal pain radiation. Other baseline symptoms were similar across groups. When comparing surgical to conservative treatments for one, two and three level isolated stenosis, there was a significant surgical treatment effect in most outcomes measures within each subgroup at each time point. The only significant difference in treatment effects between subgroups was at two years for patient satisfaction with symptoms.

Keywords: Functional outcome, lumbar spine, laminectomy

Introduction
Laminectomy is the procedure of choice especially in the elderly. The central spinal stenosis denotes the involvement of the area between the facet joints, which includes dura and its contents. the reasons for the stenosis here are protruding disc, bulging annulus, osteophyte formation or thickened ligamentum flavum central canal stenosis clinically presents as claudication and the lateral canal stenosis presents as radiculopathy the lateral recess also referred as lee's entrance zone, begins from lateral border of dura and extends to medial border of pedicle. This is where the nerve root exits. Zones of lateral canal is divided into entrance zone, mid zone and the exit zone the reason for stenosis here are lateral disc herniation, thickened ligamentum flavum extending into the foramen, facet arthritis or Spondylolisthesis [1-10]. Weinstein JN, *et al*. [11]. Combined the randomized and observational cohorts of patients with spinal stenosis (SpS), those treated surgically showed significantly greater improvement in pain, function, satisfaction, and self-rated progress over four years compared to patients treated non-operatively. Results in both groups were stable between two and four years. Park *et al*. [12] did retrospective comparative study looking at the SPORT study results to determine the effect of multilevel stenosis on surgical and conservative treatment outcomes. Amundsen *et al*. [13] dis a case control, comparative study of 100 patients with symptomatic spinal stenosis Atlas SJ *et al*. [14] did a study on long term outcome of surgical and non-surgical management of lumbar canal stenosis 8 to 10 years of follow-up. The present study is done to find out the functional outcome of lumbar spine disorders treated with laminectomy.

Aims and objectives
To study of functional outcome of lumbar spine disorders treated with laminectomy.

Materials and methods
This study was done in Department of Orthopedics, Srinivasan Institute of Medical Sciences, Mangalore. Thirty people who were treated with laminectomy procedures were selected randomly and the functional scores were studied.

Inclusion criteria
1. Degenerative Lumbar spine stenosis

Exclusion criteria

1. Old fracture spine

This is a description study and the functional outcome of the study is described in this study.

Results

Table 1: Mean age of the population

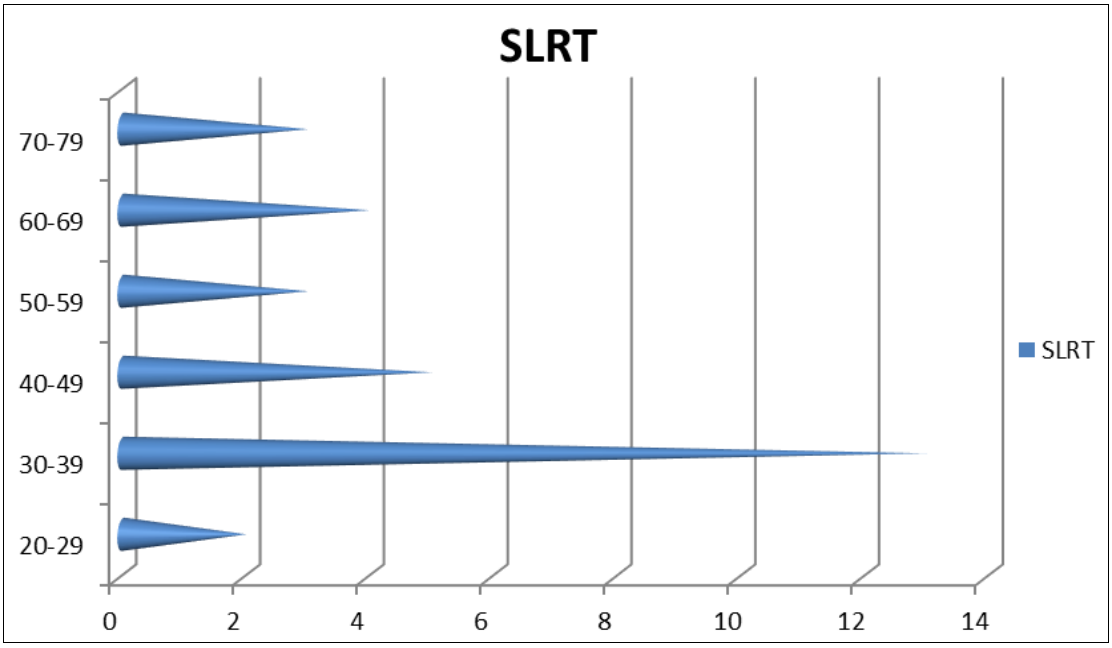
Mean age	STD Deviation
48.83 years	± 3.76 years

Table 2: Sex ratio

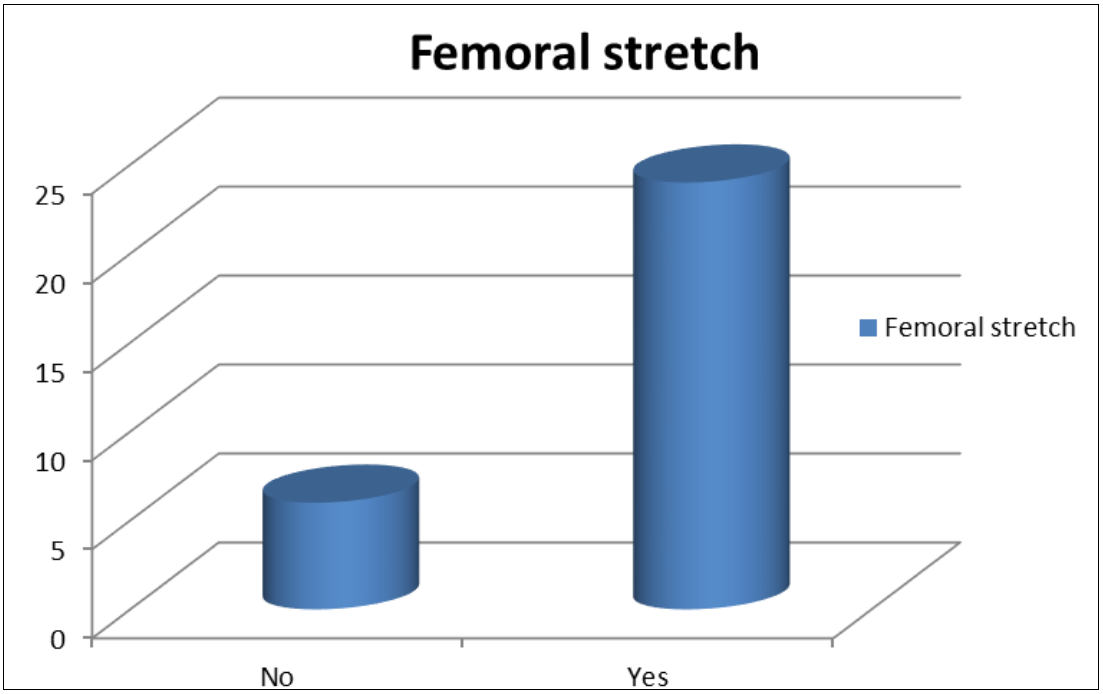
Male	Female
23	07

Table 3: Spine Flexion

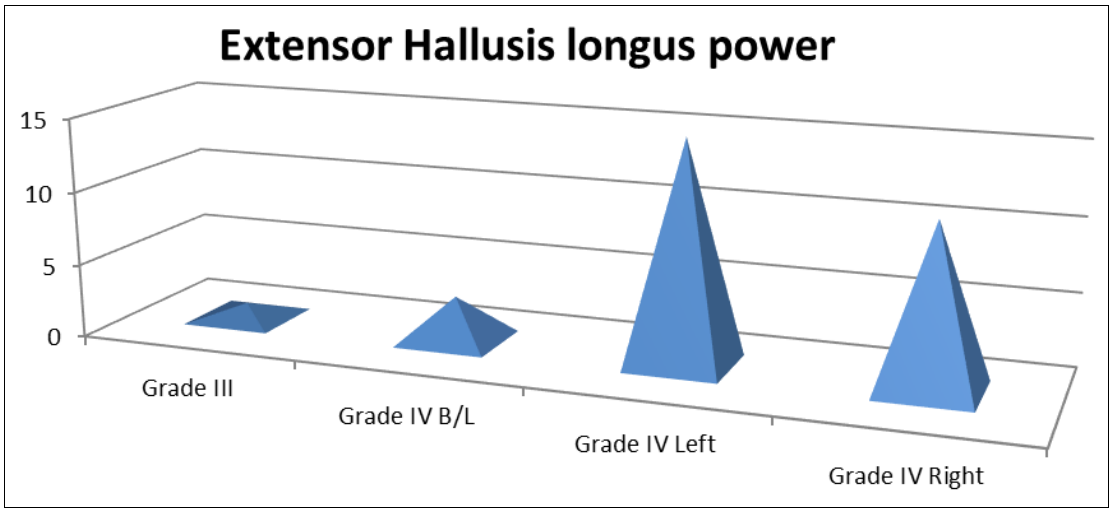
Restricted	25
Not restricted	05



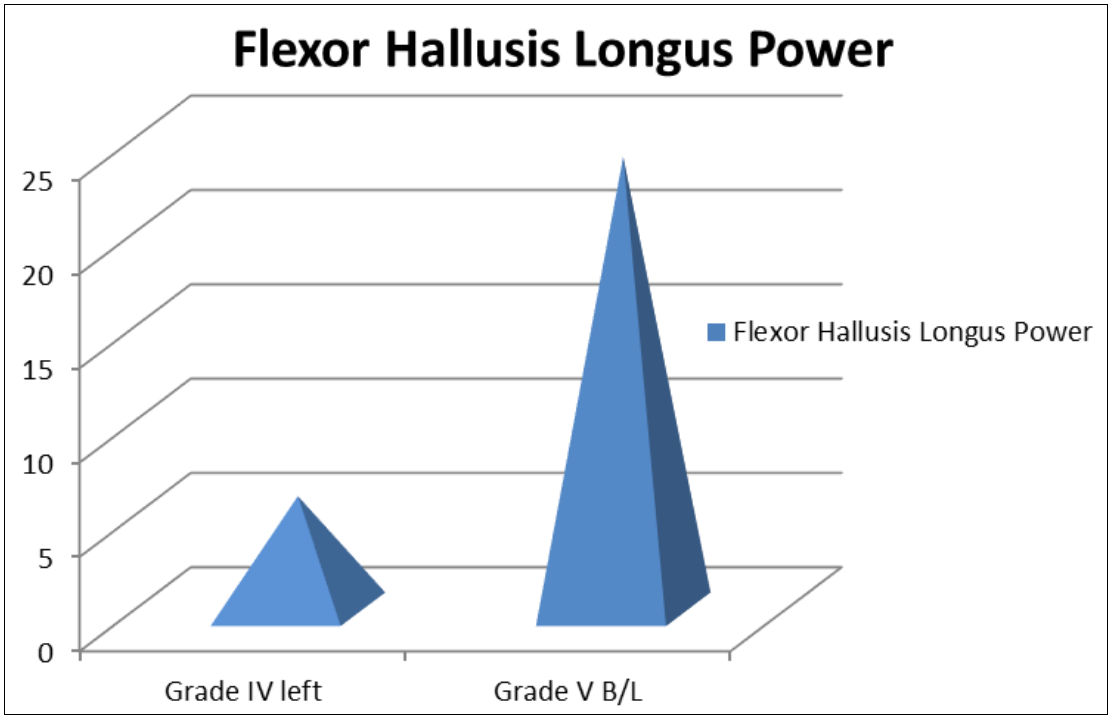
Graph 1: SLRT



Graph 2: Femoral Stretch test



Graph 3: Extensor Hallusis Longus Power



Graph 4: Flexor Hallusis Longus Power

Discussion

According a retrospective, prognostic study of the effects of age on decompressive surgery for lumbar spinal stenosis. 283 patients were grouped according to age. One group was aged 65-74 years old and the second group was > 75-years-old. Follow-up was up to 42 months with a minimum of nine months. Within both treatment groups there was a significant (p<0.0001) subjective improvement in low back and radicular pain as well as the ability to perform daily activities. When compared to preoperative levels, the oral scores for pain while performing daily activities were significantly improved (p<0.0001) in both treatment groups. The authors concluded that the overall postoperative complication rate was similar between the groups and that age is not a contraindication for surgical decompression of lumbar spinal stenosis. Both groups are equally likely to suffer minor perioperative complications.

Conclusion

In this study the functional outcome was better.

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