



## Introduction

The association between peridural scarring and recurrent pain after lumbar disc herniation surgery is debated. Numerous materials have been used in attempts to prevent or reduce postoperative peridural scarring; however, there are conflicting data regarding the clinical effects.

## Methods

A prospective randomised 1-year follow-up study on patients undergoing lumbar disc herniation surgery. The objective was to investigate the relationship between peridural scarring and clinical outcome, the scar development is from 3 to 9 months postoperatively. The study included 100 patients whose mean age was 39 years (18-66);(50%) were perioperatively randomised to receive C +, and 50 served as controls. All patients underwent MRI at 3 and 9 months postoperatively, and an independent radiologist graded the size, location and development of the scar, by using a previously described scoring system. Pre- and 1-year postoperatively patients graded their leg pain on a visual analogue scale (VAS).

## Learning Objectives

- The use of collagen resulted in statistically significant surgical outcomes 1 % vs 4 %
- None of the 50 patients from the Collagen Group required re-operation due to clinical symptoms
- CollagenLayer:
- Was easy to use over the exposed tissues (thecal sack and nerve root)

## Results

- The Collagen Group
- Postsurgical fibrosis was found in 1.% vs 4 % Standard group
- Pain Outcomes: Results from the Control Group (Standard Practice)
- Patients with more fibrosis, shown by the arrows, exhibited more significant symptoms . The results showed that the probability of recurrent pain increases when scar score increases. Patients having extensive peridural scar were 3.2 times more likely to experience recurrent radicular pain than those patients with less extensive peridural scarring. At the 1-year follow-up patients rated their satisfaction with treatment (subjective outcome) and were evaluated by an independent neurologist (objective outcome), using MacNab score. Patients treated with C+ did not demonstrate any adverse effects,

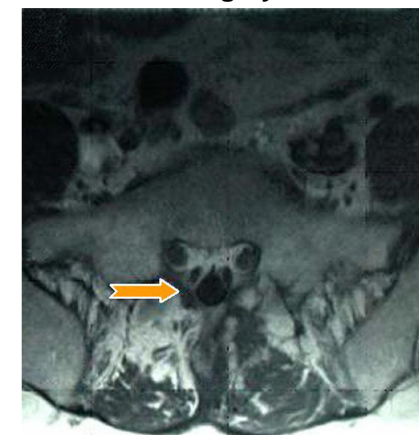
## Conclusions

The difference in re-operation rate between the collagen matrix group and the standard procedure group is statistically significant ( $p < 0.001$ ).

## References

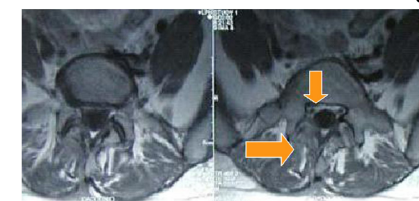
- 1-EUROPEAN MUSCULOSKELETAL REVIEW: spine Peri-radicular Lumbar Fibrosis – What to Do? Pag 54 – 56. 2008 .
- 2-World Spine Journal Volume 2: Issue 3 pag 134 – 139. 2008 Evaluation of a Dural Graft Matrix as an Adhesion Barrier in Lumbar Spine Surgery
- 3-Journal of Bone and Joint Surgery - British Volume, Vol 92-B, Issue SUPP\_I, 231. 2010 PERIRADICULAR LUMBAR FIBROSIS. WHAT TO DO?
- 4-Worl Spinal Column Journal 2: 112-167, 2010 Collagen Dural Matrix Plus as an Adhesion Barrier:avoid Symptoms Due to Scar Tissue After Lumbar Discectomy: Clinical Trial.
- 5-Reduction of clinical Symptoms after lumbar discectomy using collagen dural Matrix: clinical Trial Iñaki Arrotegui .Department of Neurosurgery, Hgu Valencia, Valencia, Spain WScJ 2: 7-14, 2011

## How to avoid scarr tissue after disc surgery



1

## scarr tissue after lumbar Disc surgery



1



Movie