

R Leclaire et al. Spine. July (2001) Vol. 26 #13 p 1411.

The pathogenesis of low back pain continues to attract controversy. Some would argue that it is due to stimulation of nerves in the facet joint. Such stimulation would be expected when local tissue damage or remodeling is present. In that case it could be argued that LBP is a sign of injury.

This study sets out to test the effectiveness of facet joint denervation in relieving LBP. If successful it would reinforce the belief in an injury model for LBP.

Denervation is usually irreversible.

This was a prospective double blind Randomised Control Trial (one of the most powerful study designs).

70 patients with LBP which had persisted for more than 3 months and who had reported temporary relief provided by injection of lidocaine hydrochloride into facet joint were randomised into groups for denervation or sham denervation. The relief provided by lidocaine suggested a role for facet joint nerve stimulation, but could not be conclusive.

36 had treatment 34 did not.

Oswestry and Roland Morris Disability (RM) Questionnaires and visual analogue pain scale were used as tests of baseline and outcome.

Pre-treatment RM scores were around 52 – 50, Oswestry score 38 – 36 and VAS 52%.

At 4 weeks RM disability score had improved by 8.4% in the treatment group and 2.2 % in the sham treatment group. Standard deviations were 17% and 15% respectively, suggesting that neither result was particularly significant.

At 4 weeks Oswestry and VAS were not different between treatment and sham groups.

At 12 weeks there was no difference at all in any of the scales. Pain may even have become worse.

Comment

For this group of cases, either: nerve injury or tissue damage close to the nerve was not the cause of LBP or related disability or; denervation was consistently and thoroughly unsuccessful (an unlikely explanation).

Facet joint denervation would not seem to offer a generally applicable treatment for LBP symptoms or related disability.

