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Rosen et al ([iii](#)) concluded in 1988, "overall results were poor", with only approximately 50% of patients receive temporary relief, whilst long-term relief occurs in less than 25% of patients.

Anderson and Mosdal ([iiii](#)) found that epidural steroid injection was "useless" in patients with long-lasting complaints and previous disc operations.

This finding was also seen in the study by Cuckler et al ([iv](#)), which failed to demonstrate ESI efficacy, with the authors also raising the issue of published reports of "serious complications".

More recently, in 1997, Carette et al ([v](#)) studied patients with prolapsed nucleus pulposus and found that epidural steroid

"offers no significant functional benefit, nor does it reduce the need for surgery,"

although there may be short-term improvement in pain and sensory deficit.

Ringsdal et al ([vi](#)) proposed that

"future correctly designed studies are necessary to clarify whether the injection should be

a supplement to the established treatment of low back pain and sciatica,"

as they found that previous studies showed conflicting results.

The NHMRC report ([\[vii\]](#)) suggests that ESI are of greater use in sciatica when there is a substantial inflammatory component (especially if acute) but are less useful if there is a predominantly compressive radiculopathy.

The AHCPR Clinical Practice Guideline ([\[viii\]](#)) clearly states that "Epidural injections are invasive and pose rare but serious potential risks.

There was no evidence that epidural steroids are effective in treating acute radiculopathy."

Lafuma et al ([\[ix\]](#)) conducted a randomised multicentre study to evaluate the benefits and costs of routine epidural steroid injections, using the primary criterion of whether other treatments were required following 1 to 3 injections: they concluded

"adding an epidural injection as a first-line treatmentfor the treatment of lumbosciatic syndrome requiring in hospital management results in additional costs and no gain in efficacy."

Again, this viewpoint was echoed by Schneeberger et al in 1998 ([\[x\]](#)), who commented thus

"To the present time no conclusive data has been published to prove that these procedures reduced the need for surgery in the case of herniated nucleus pulposus or spinal stenosis.

Their efficacy on the intensity of pain is also controversial. Some improvement on pain and functional scores may be observed for a few weeks but this positive effect disappears 2 or 3 months post-injection."

McQuay ([\[xi\]](#)) cites an NNT (Number Needed to Treat one patient successfully) of 7.3 for greater than 75% pain relief in the short term (1-60 days) and 13 for more than 50% pain relief in the long term (12 weeks to 1 year).

In comparison to adjuvant analgesics such as antidepressants and anticonvulsants which have NNTs of between 2 and 3 for intractable neuropathic pain, ESIs are patently much less effective.

TIME TO PRODUCE EFFECT:

Local anaesthetic 30 minutes; steroid: 48-72 hours in 80% of patients, 2 weeks for 20%.

TIMING OF REPEAT:

Usually after 1-2 weeks during one series; next series usually after a minimum of 3 months.

[\[i\]](#) Rozenberg S, Dubourg G, Khalifa P, Paolozzi L, Maheu E, Ravaud P *Rev Rhum Engl Ed* 1999 Feb;66:79-85 Efficacy of epidural steroids in low back pain and sciatica. A critical appraisal by a French Task Force of randomized trials.

[\[ii\]](#) Rosen CD, Kahanovitz N, Bernstein R, Viola K *Clin Orthop* 1988 Mar; (228):270-2 A

retrospective analysis of the efficacy of epidural steroid injections.

[iii] Andersen KH, Mosdal C *Acta neurochir (Wien)* 1987; 87(1-2): 52-3 Epidural application of cortico-steroids in low-back pain and sciatica.

[iv] Cuckler JM, Bernini PA, Wiesel SW, Booth RE Jr, Rothman RH, Pickens GT *J Bone Joint Surg[Am]* 1985 Jan; 67(1):63-6 The use of epidural steroids in the treatment of lumbar radicular pain. A prospective, randomized, double-blind study.

[v] Carette S, Leclaire R, Marcoux S, Morin F, Blaise GA, St-Pierre A, Truchon R, Parent F, Levesque J, Bergeron V, Montminy P, Blanchette C *N Engl J Med* 1997 Jun 5; 336(23): 1634-40 Epidural corticosteroid injections for sciatica due to herniated nucleus pulposus.

[vi] Ringsdal VS, Nielsen NA, Slot O, Kryger P *Ugeskr Laeger* 1997 Sep 15;159(38): 5653-7 [Epidural glucocorticoid injection in lumbago sciatica]

[vii] National Health and Medical Research Council (NHMRC) Australia, 1994 Epidural use of steroids in the management of back pain and sciatica of spinal origin.

[viii] Agency for Health Care Policy and Research (AHCPR); (Federal Government Agency) 1994 Clinical Practice Guideline No.14; Acute Low back problems in Adults: assessment and treatment.

[ix] Lafuma A, Bouvenot G, Cohen C, Eschwege E, Fagnani F, Vignon E *Rev Rhum Engl Ed* 1997 Oct;64(10):549-55 A pragmatic cost-effectiveness study of routine epidural corticosteroid

injections for lumbosciatic syndrom requiring in-hospital management.

[x] Schneeberger A, Gerster JC, So A *Schweiz Rundsch Med Prax* 1998 Apr;87(14):476-80
[General practice of lumbosacral peridural infiltrations in rheumatology: considerations based on a review of the literature]

[xi] McQuay HJ Internet resource : Epidural corticosteroids for back pain. <http://www.jr2.ox.ac.uk/Bandolier/painres/painpag/Cronrev/Other/CP076.html>