Microdiscectomy compared with transforaminal epidural steroid injection for persistent radicular pain caused by prolapsed intervertebral disc: the NERVES RCT

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Plain English summary

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What is the problem?

Sciatica or pain related to nerve irritation travelling down the leg is common in young working adults and most likely to be caused by a ‘slipped’ (prolapsed) disc. Although the majority of cases get better on their own and within 4–6 weeks, a significant group of patients struggle with disabling symptoms sometimes beyond 1 year. Consequently, patients struggle to maintain their home and working lives. Many treatments are available for sciatica, but simpler treatments (e.g. pain tablets, physiotherapy and changing one’s lifestyle) are often not very effective and patients have often tried all of them by the time they are seen in hospital to have tests, such as scans, done.

Surgery to remove part of the disc is recommended in cases where the pain is accompanied by severe weakness in one or both legs, or where doctors think that nerves may be damaged because patients have bladder, bowel and sexual functioning difficulties (i.e. red flag symptoms). Surgery works well in alleviation of referred leg pain and also to relieve pressure on a physically compressed nerve that may be showing clinical sign of injury/weakness. An alternative to surgery is to inject a mixture of anaesthetic and steroid close to the site of the disc injury and nerve, but at the moment we do not know whether or not these injections work in the long term. They are cheaper and less invasive, with fewer risks than surgery, such as from anaesthetic or infection.

What did our study investigate?

This study compared the usefulness of surgery with injections for patients who have had sciatica for < 1 year and who have tried simple remedies but are still in pain. Patients were allocated to have either surgery or the injection. Symptoms (e.g. pain) were assessed after 18 weeks.

What did we find?

We found that there was no significant difference between surgery and injection at the primary end point. Surgery was not significantly different from injection in terms of clinical outcome and was not cost-effective compared with injection.

Our conclusion and recommendation

Given the cost of surgery and the risks to patients, we suggest that further studies should be carried out to explore whether or not all patients with sciatica due to a slipped disc should be considered suitable for an injection, unless there is a good reason not to.
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This report

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