

Comparing the Effects of Two Types of Epidural Shots on Pain and Physical Ability in Older Adults with Lumbar Spinal Stenosis

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What was the research about?

Lumbar spinal stenosis is a narrowing of space in the spine and is common in older adults. The narrowing of the spinal space can result in pressure on the nerves in the lower back, which can cause leg pain and make it difficult to do everyday activities.

Doctors sometimes inject medicines into the epidural space of the lower back to treat lumbar spinal stenosis. The epidural space is inside the boney canal of the spine but outside the spinal cord. The shots can contain two types of medicines. Steroids reduce swelling. Numbing medicines, such as lidocaine, can offer short-term pain relief.

In an earlier study, researchers compared two treatments for lumbar spinal stenosis in older patients over a nine-week period. Each patient got four shots that contained either

- A steroid and lidocaine
- Only lidocaine

In this study, the research team continued to follow patients for one year.

What were the results?

After one year, no matter which type of shot,

- Patients' leg pain decreased about the same amount.

- Patients' ability to do everyday activities improved similarly.
- The percentage of patients who needed other treatments for pain was similar.

Between the third and fourth shots, patients could switch to the other type of shot. Of the 150 patients who switched, 87 percent switched because their pain hadn't decreased. Fewer patients switched groups if they had started with steroid shots than if they had started with lidocaine-only shots. At the end of the study, patients who switched to steroid plus lidocaine or lidocaine-only shots noted similar improvements in pain and physical ability.

Who was in the study?

The study included 400 adults at least 50 years old with lumbar spinal stenosis. The research team recruited patients referred for epidural steroid shots at 16 clinics across the United States. Patients had moderate to severe leg pain and impaired physical ability.

What did the research team do?

In the earlier study, the research team assigned patients by chance to receive one of two types of epidural shots. At the start of that study, each patient received one type of shot and could choose to get another three weeks later. At six and nine weeks, patients could then decide to switch to receive the

other type of shot. Patients who didn't switch could receive the same type of shot up to four times.

In this study, the research team followed patients for a longer time. They evaluated patients at various times during the one-year period after their first shot. Using a survey, they asked patients about

- Leg pain
- Ability to do everyday activities
- Other treatments received during the study

At six weeks, the team also noted how many patients switched to the other type of shots.

When planning and conducting the study, the research team worked with patients with lumbar spinal stenosis, doctors, and policy makers.

What were the limits of the study?

Patients in the study were older adults who had one type of lumbar spinal stenosis. The results may not apply to younger patients or those with other types of spinal stenosis. The doses of the epidural medicines

and the type of steroid varied within each group, which may have affected the results. The team compared steroid shots with just lidocaine, which has some pain-relieving effects. As a result, the study doesn't show how epidural steroids compare with no treatment. Although fewer patients switched groups if they started with steroid shots, the research team noted that this difference occurred at only one study location.

Future studies could look at younger adults or people with other types of spinal stenosis. Other research could look at just one dose of steroid shots or compare steroid shots with no treatment.

How can people use the results?

Doctors and patients can use the results to discuss treatment options for lumbar spinal stenosis. Patients who got both types of shots showed similar improvement at one year. This result suggests that adding a steroid to lidocaine shots doesn't make the treatment more effective.

To learn more about this project, visit www.pcori.org/Friedly108.