



QUESTION | WHAT IS THE SUCCESS RATE FOR ALIF (anterior lumbar interbody fusion) IN CHRONIC DISCOGENIC BACK PAIN?

Dr Andreas Loeffler answers this month's question:

ANSWER | Degenerate disc disease is a real entity. It may occur at any age and become debilitating. Some patients have a known cause, like an injury or occasionally a previous operation, such as a discectomy. However, the majority of patients do not recall an event or how their pain actually started.

Discogenic back pain is characterised by mechanical symptoms, which are exacerbated by movement and activity. The pain is often in the lower back, but may radiate into the buttocks. Pain is worsened by bending, lifting and twisting, all of which increase the forces across the disc. There may be some neurological symptoms, due to an irritation of a traversing nerve root.

If the symptoms persist for more than 6 to 9 months and if the pain is severe enough to consider an operation, investigations are warranted. The MRI is the best test, as it will show the quality and consistency of the discs and give some indication of the surrounding soft tissues. So-called Modic changes refer to high signal uptake of the vertebral end plates adjacent to the disc. They are thought to represent oedema and inflammation of the disc and surrounding tissues. A bone scan with SPECT may also help to localise pathology and to exclude other causes of pain, such as small tumors, not visible on x-rays.

In general terms ALIFs (anterior lumbar interbody fusion) and PLIFs (posterior lumbar interbody fusion) have a success rate of about 70%. Success itself is not easy to define, but I suggest to my patients that they have a good chance of a significant reduction of pain. Patients with single level disc pathology have a better chance of improvement than those with a worn out back and multiple degenerate discs. Patients and surgeons should define success for each case. There will always be some back pain, but has a significant change been achieved.

The first decision is whether non-operative treatment can help or whether it has failed. Then one has to decide whether symptoms are severe enough to warrant surgery. This should involve the patient and often their physiotherapist. Sometimes the patient's family will give an insight or extra information about the patient. It is important to hear what the patients' expectations are.

I have previously written on ALIFs versus PLIFs, and the success rate is roughly the same. I do both approaches depending on the sex, the weight, on previous surgery, and on individual needs. The approach itself does not greatly influence the outcomes.

In general terms, patients who have single level disc pathology and have failed non-operative treatments, such as physiotherapy and exercise, and who do not have psychological issues or pending litigation, may have a 70% chance of significant improvement in their pain. If two or more levels are involved, or if the patient has other health problems, such as obesity or depression, the success rate of an ALIF will be much lower, perhaps too low to warrant the risks of surgery.

Dr Andreas Loeffler