Comparison of surgical or non-surgical management for non-acute anterior cruciate ligament injury: the ACL SNNAP RCT

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Plain language summary

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What was the question?

The study aimed to find out whether it is better to offer surgical reconstruction or rehabilitation first to patients with a more long-standing injury of their anterior cruciate ligament in their knee.

This injury causes physical giving way of the knee and/or sensations of it being wobbly (instability). The instability can affect daily activities, work, sport and can lead to arthritis. There are two main treatment options for this problem: non-surgical rehabilitation (prescribed exercises and advice from physiotherapists) or an operation by a surgeon to replace the damaged ligament (anterior cruciate ligament reconstruction). Although studies have highlighted the best option for a recently injured knee, the best management was not known for patients with a long-standing injury, perhaps occurring several months previously. Because the surgery is expensive to the NHS (around £100 million per year), it was also important to look at the costs involved.

What did we do?

We carried out a study recruiting 316 non-acute anterior cruciate ligament-injured patients from 29 different hospitals and allocated each patient to either surgery or rehabilitation as their treatment option. We measured how well they did with special function and activity scores, patient satisfaction and costs of treatment.

What did we find?

Patients in both groups improved substantially. It was expected that some patients in the rehabilitation group would want surgery if non-surgical management was unsuccessful. Forty-one per cent of patients who initially underwent rehabilitation subsequently elected to have reconstructive surgery. Overall, the patients allocated to the surgical reconstruction group had better results in terms of knee function and stability, activity level and satisfaction with treatment than patients allocated to the non-operative rehabilitation group. There were few problems or complications with either treatment option.

Although the surgery was a more expensive treatment option, it was found to be cost-effective in the UK setting.

What does this mean?

The evidence can be discussed in shared decision-making with anterior cruciate ligament-injured patients. Both strategies of management led to improvement. Although a rehabilitation strategy can be beneficial, especially for recently injured patients, it is advised that later-presenting non-acute and more long-standing anterior cruciate ligament-injured patients undergo surgical reconstruction without necessarily delaying for a period of rehabilitation.

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