Manipulation for locked knee

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SUMMARY. There is a type of locked knee in which the last 10 to 40 degrees of extension are lost. The manipulation used in the treatment of six patients is described. Manipulation in this instance should primarily be regarded as a first aid procedure to restore function and to stop the pain. The condition is usually caused by an abnormality of the lateral meniscus and meniscectomy may be required later.

Introduction

The term 'locked knee' is used to describe those conditions in which the knee extends normally for part of its range but is suddenly checked short of full extension.

The principal causes are:

1. Injury to a meniscus, in which the final few degrees of extension are lost.
2. A loose body in the joint which suddenly checks extension of the knee and may cause the patient to fall.
3. A condition usually related to congenital defects of, or damage to, the lateral meniscus in which the final 10 to 40 degrees of extension are lost, normally without any severe or obvious trauma. Attempts at extension beyond the point at which the knee locks are very painful.

This last kind of locked knee is uncommon, but most practitioners are likely to encounter it at some time.

In over 31 years of general practice in Suffolk, and with an average medical list of over 3,000 patients (95,000 patient-years), I have seen four examples in the practice population giving an incidence, excluding recurrences, of 0.04 per 1,000 population per year. In addition, I have attended two visitors for this condition.

The immediate treatment, which was successful in each case, was manipulation of the joint. In principle, manipulation of the locked knee requires traction on the flexed and adducted knee together with gentle rocking and rotating movements at the knee joint.

Various methods of doing this have been described (Smillie, 1970; Cyriax and Russell, 1977). Following the above principles, I devised a manipulation in each case according to the circumstances.

Examples

Patient 1.
A retired tailor, who had sat cross-legged on the floor for most of his working life, sent for me for locking of the left knee. I asked him to lie on his back on the floor and lifted his foot till it was waist high, applying traction as I did so. I then pressed my knee intermittently against the inside of his shin. The knee was gradually extended painlessly until a sudden cartilaginous sensation of structures moving within the knee joint occurred. He was then able to use the knee normally. Locking of the knee occurred several times at quite long intervals, and was dealt with in a similar manner until his death some years later.

Patient 2.
A teenage girl was manipulated in the same way as the first patient at intervals of several months. Each time her symptoms were completely relieved. She later left the district and I heard indirectly that she had had a lateral meniscectomy as a treatment for further recurrences.

Patient 3.
A 45-year-old man hobbled into my surgery and said that his knee had suddenly become locked. Manipulation as used in the first patient was immediately effective and there has been no recurrence.

Patient 4.
I was called to a young adult who had been sitting at a low table in a cabin cruiser on Oulton Broad. He had attempted to leave the table but had been unable to do so because his knee had locked. It was necessary to perform a manipulation from under the table. I applied traction to the foot by leaning backwards from a sitting position on the floor and pulling on his foot, simultaneously applying pressure with my knee on the inside of his shin. The derangement was reduced suddenly and he was then able to walk normally.

Patient 5.
This example was identical in all respects to the fourth example and likewise occurred in a holidaymaker who had
inolaxine contains 98% sterculia inolaxine is sugar free

- lowers intracolonic pressure
- reduces pain & distension
- restores bowel to normal

been prevented from getting up from the table. The manipulation was similarly successful. Follow-up was not undertaken in either of these two cases.

Patient 6.

The patient was a 13-year-old boy who on several occasions over three years had suffered from a locked knee. Both knees had been affected and he had usually been able to relieve the condition himself by massaging the knee. On this occasion he had been sitting on a chair with his right knee resting on his left ankle, and when he attempted to straighten his left leg he was unable to do so. The knee had locked and he had been unable to reduce it himself. When I saw him, the left knee was flexed and painless, but when he attempted to extend the knee he felt severe pain and was unable to effect the last 40 degrees of extension. The method of reduction used in the first example proved inapplicable as the boy was not heavy enough to provide counter-traction to my pull on his foot. I therefore asked him to sit with the outside of his left foot resting on his right knee. This manoeuvre exerts considerable traction on the outside of the left knee joint, which is shown by the lateral ligament of the joint being easily palpable as a rigid cord crossing the joint. The head of the tibia can be felt to move forwards on the femoral condyles as the knee comes to rest in this position. Gentle rotation of the knee joint, produced by rotating his left foot and fro, resulted in a slight click in the left knee. This manipulation required minimal force and the boy was unaware that the derangement had been corrected until he was asked to extend the knee, which he was able to do normally and painlessly. At the follow-up seven weeks later he had had no further trouble with either knee.

This latter manipulation required so little physical effort on the part of the operator that it may prove to be the manipulation of choice in children.

References


District nurse training

Some have tried to blame the district nurses for insisting on statutory recognition for their training, but this will not do. If the district nurses' campaign had never happened, we would still have found ourselves in this absurd impasse.

Why? Because we are having in public now the discussions we should have had within the profession five years ago. We sat back and blamed successive governments for their inaction on Briggs when we should have been looking for ourselves at what exactly we wanted.

As a profession we are politically gauche. We never bothered to find out how a standing committee differed from a statutory one and how both might fit into the statutory framework until now, the eleventh hour, when we suddenly notice that it matters. So we are confused because we do not even know the language in which we are negotiating.

Reference