

NEW OPERATING TECHNIQUES FROM MUNICH FOR TREATING SPORTSMAN'S GROIN IN FOOTBALLERS

Even nowadays, weak groin and more particularly inguinal hernia operations are among the most important operations in the world. Athletes' future careers can be seriously affected by whether they receive the correct treatment with minimal absence from training. Footballers are exceptionally prone to inguinal hernias, or the initial form: a weak groin, also known as sportsman's groin or pubalgia (1).

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MINIMUM INTERVENTION, MAXIMUM BENEFIT

Groin injuries make up 5-7% of all football injuries (2). These injuries often cause chronic complaints and can limit or even end footballers' careers. Consequently sports medics around the world are becoming increasingly interested in aetiology and the treatment of groin injuries.

However, it is hard to diagnose these problems accurately and this task should be left to a specialist. The terms "sportsman's groin", "pubalgia", and "weak groin" cover all cases where there is no inguinal hernia but where the posterior inguinal canal wall has stretched and is exerting pressure on a sensitive nerve (5). This is the most common source of chronic and acute pain in the groin area. There is no visible inguinal hernia, but a slight swelling in the stretched posterior inguinal canal wall, which can be identified digitally and recorded using sonography (5).

The problem is caused by a weakness or abnormality in the posterior inguinal canal wall, which in turn causes the transversalis fascia to dilate slightly at the weak point, widening Hesselbach's triangle. If the athlete then tenses his stomach muscles during training, the swelling grows, which compresses the nerves that pass below the lower wall of the inguinal canal: the genital branch of the genitofemoral nerve (Diagram 1).

This compression can cause a burning or dull pain, which may extend to the inner thigh or scrotum and often spreads to the back. This is typical of this kind of nerve irritation.

As Hesselbach's triangle widens, it also causes the musculus rectus to retract upwards and medially. Consequently, tension increases

in the musculus rectus at the pubic bone, which can trigger the complaint known as pubalgia, which is common among athletes (Diagram 2).

Possible treatments: Unfortunately, the time between the onset of pain and a definitive diagnosis is still often very long: the average is 20 months (5). It must be stressed that an athlete with groin pain needs to see a specialist, preferably a surgeon who specialises in inguinal hernias.

After the diagnosis has been made, there is only a very short window of opportunity for conservative treatments.

If a 4-6 week course of high dose antiphlogistics, vitamin B6 and physiotherapy does not correct the problem, surgery is the only

remaining option. After this period, there is usually a risk of permanent nerve damage and therefore chronic groin pain.

What operating technique should be used for sportsman's groin? Which surgical techniques allow rapid recovery and the quickest possible return to high level sport?

Since late 1993 we have been operating on around 1,100 hernias per year in our highly specialised hernia clinic. Elite athletes make up around 7% of our clients, which is one of the highest figures in Europe. Until 2000, we only used the original Shouldice technique, which involves strengthening the abdominal wall using special sutures.

As a general rule, we do not use prosthetic mesh for athletes. Athletes still require full elasticity and movement in their abdominal muscles after the operation. Whichever operating procedure is used, a prosthetic mesh would result in localised stiffening of the abdominal muscles and, therefore, restricted movement. The muscular sheath then becomes less effective. We feel it is inadvisable to use mesh-based techniques with elite athletes, as they can bring a sporting career to a sudden end.

As athletes nearly always have a small, minor weakness in the posterior inguinal canal wall, a full-blown Shouldice operation – which involves cutting the intact posterior wall – would be going too far.

Having operated on over 2,000 athletes, we have developed a procedure in our clinic which reflects their specific needs. This less intrusive technique has been especially designed for athletes, and is known as "minimum repair". Here is a summary of the key features:

1. In athletes and patients with a small hernia, the posterior inguinal canal wall around the the weakness is firm and intact, so the minimum repair technique leaves the surrounding area intact and only opens up the affected part. After the operation, once the athlete is free of pain (2-3 days), he/she is free to resume normal training.
2. The genital branch of the genitofemoral nerve is monitored during the operation and if necessary, part of it is removed.
3. Tension in the musculus rectus at the pubic bone is reduced using special suture repairs beyond the pubic bone. With adequate preparatory work on the posterior inguinal canal wall, this suture creates virtually no tension (Diagram 3).
4. The lateral section of the musculus obliquus internus is important for the creation of a muscular fascia which protects the pampiniform plexus and nerves from mechanical irritation (Diagram 4). The remainder of the musculus obliquus internus and the ilioinguinal nerve which runs along it are unaffected.

The operation is always performed under local anaesthetic. The patient spends a day in the clinic and goes

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home in the evening on the day of the operation.

Two days after the operation, the patient can already resume gentle exercise such as jogging and cycling. Three to four days after the operation, elite athletes can begin training such as sprinting or ball training. Within five or six days of the operation there are no further physical restrictions.

The benefits of the "minimum repair" operating method for elite athletes are obvious: the extremely short convalescence period, and minimal post-operation pain guarantee a very rapid return to action.

This procedure therefore allows athletes, especially professional footballers, to make a very rapid recovery.

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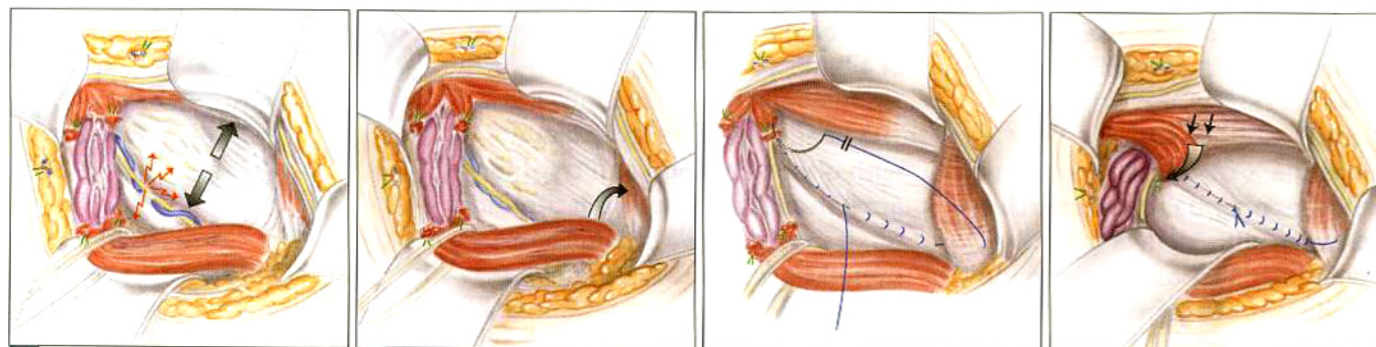


Diagram 1

Diagram 2

Diagram 3

Diagram 4