



THE USE OF MESOTHERAPY IN SPORTS MEDICINE

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Mesotherapy is a simple French therapeutic technique that is widely used in Europe, although it is not well known in the US. It involves a local injection of medication into the mesoderm, as close to the site of injury as possible. It is used primarily for its analgesic, anti-inflammatory and muscle-relaxing effects.

In sports medicine, it can be of benefit to players with soft tissue injuries, who naturally aim to be able to return to play at the earliest opportunity. Sports trauma is often implicated in the treatment of soft tissue injuries. In most cases, the congestive and inflammatory reaction of these tissues before healing justifies taking pain-killing and anti-inflammatory medication.

The physician must not ignore the possibility of recurring traumatism, however, which means that repeated doses of medication will be needed and can be a cause of concern to the prescribing doctor (for reasons of digestive tolerance, risk of allergies, etc).

In the mesotherapeutic treatment of sports trauma, we currently use the following products.

- Procaine or Lidocaine, which serve as vectors and improve the diffusion of the products (Lidocaine for acute pathologies, Procaine for chronic pathologies)
- An anti-inflammatory (Piroxicam)
- A muscle relaxant (Thiocolchicoside)
- Salmon calcitonine and vasodilators.

These are injected into the mesoderm around the area to be treated, using 4 mm 'Lebel' needles. These can be used once only. The syringe can contain 1ml, 5ml or 10 ml according to the zone to be treated.

Procaine and Lidocaine are Class IIIC products. Local injections are authorized only when administration is medically justified. Where health regulations require, it may be necessary to notify the authorities.

When to use mesotherapy:

Mesotherapy can be used for the following indications:

- Post-traumatic articular or peri-articular inflammation, such as sequelae of a sprained ankle
- Inflammation of a tendon and/or peritendonitis
- Achilles tendinopathy, plantar fasciitis or extensor carpi ulnaris tendinopathy
- Quadricipital tendinopathy
- Muscle contraction: backache, torticollis or lumbago
- Spinal pain: facet syndrome.

The main two types of contra-indications are:

- Known allergy to one of the injectable substances
- Poor skin condition.

Treatment:

The equipment must only be used once. The physician should wash his hands with an antiseptic product and the skin around the area to be treated must be disinfected with an iodised product.

The injection technique is very simple. The needle penetrates at an angle of 60° up to the stop. On average, 6 to 10 injection points are used, introducing a mean of 0.1 cc mixture. If the zone to be treated is larger, more liquid is injected. After treatment, no cream or ice should be applied and no massage should be used. A dressing should be kept over the treated area for at least three hours.

Follow-up sessions can be given on the third and seventh day after the first treatment. Efficiency should then be evaluated.

Tolerance and side-effects:

Tolerance of the mesotherapy technique was examined in a French national study of 2,839 patients. **Overall, tolerance of the technique was excellent.** No anaphylactic or vagal shock was observed. Neuro-vegetative reactions (sweating, pallor) decreased in follow-up sessions. Side-effects essentially involved the injection site. The table below shows the local effects. The most frequent were pain at the injection points, which was frequent but tolerable. Haematomas were small and disappeared in a few days.

The French Mesotherapy Society is currently conducting studies to explore and explain the method of action of this therapeutic technique. Further details are available at the Society's website: www.sfmesotherapie.ifrance.com.

Conclusion

In our experience, **mesotherapy can be a useful technique for the treatment of sports trauma and micro-trauma. There are virtually no adverse effects if the contra-indications are respected.** The doses of medicinal drug injected are tiny, which contributes to the good general tolerance of the technique. However, the technique has not yet been explored sufficiently and the lack of scientific validation is a frequent handicap that we encounter in sports medicine and the fight against pain.