Lisfranc Injury Treatment Guidelines Handout

What are Lisfranc injuries?

Lisfranc injuries are complex midfoot injuries affecting the tarsometatarsal (TMT) joint complex. Named after French surgeon Jacques Lisfranc de St. Martin, these injuries involve damage to the bones, ligaments, or both in the midfoot region where the metatarsal bones connect to the tarsal bones.

How do you manage and treat Lisfranc injuries?

Urgent orthopedic consultation

Prompt evaluation by an orthopedic specialist is crucial for Lisfranc injuries. These complex injuries often require expert assessment to determine the most appropriate treatment plan. Early consultation can help prevent complications and improve long-term outcomes. The orthopedic surgeon will evaluate the injury through physical examination and imaging studies and may discuss surgical options if necessary.

Conservative treatment

Non-surgical management may be appropriate for less severe Lisfranc injuries. This approach typically involves immobilizing the affected foot in a non-weight-bearing cast or boot for approximately 6 weeks. Following this period, patients can gradually resume physical activities if midfoot pain subsides. An orthopedic insole is often prescribed to help distribute pressure away from the medial longitudinal arch to support the foot's structure during recovery.

Open reduction with internal fixation (ORIF) or midfoot fusion

For displaced Lisfranc injuries or those with significant instability, surgical intervention is often required. The two primary surgical approaches are:

1. **Open reduction and internal fixation (ORIF):**
   This procedure aims to realign the displaced bones and stabilize them with screws and/or plates. ORIF is typically preferred for injuries where joint preservation is possible.
2. **Midfoot fusion (Arthrodesis):**
   In cases of severe joint damage or when ORIF is unlikely to provide adequate stability, fusion of the affected midfoot joints may be necessary. This procedure involves permanently joining the damaged joints to eliminate motion and pain.

The choice between ORIF and fusion depends on the severity of the injury, the patient's age, the patient's activity level, and the surgeon's assessment.

Percutaneous surgery

In recent years, minimally invasive or percutaneous techniques have gained popularity for treating certain Lisfranc injuries. This approach involves making small incisions and using specialized instruments to reduce and fixate the injury. Potential benefits of percutaneous surgery include:

- Reduced soft tissue damage
- Lower risk of infection
- Faster recovery times
- Improved cosmetic outcomes

However, percutaneous techniques may not be suitable for all Lisfranc injuries, particularly those with severe displacement or comminution. An experienced foot and ankle surgeon should decide whether to use this approach on a case-by-case basis.

References

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