

Examination of the tibial nerve

Anatomy

The **tibial nerve** originates from the L5–S2 segment of the lumbosacral plexus, it is one of the two main branches of the ischiadic nerve, and it gives off two large branches in the plantar, the plantaris lateralis and plantaris medialis. It has both a sensory and a motor component, so it is a mixed nerve.

Motor innervation area

- m. triceps surae
- m. tibialis posterior
- m. popliteus
- m. flexor digitorum longus
- m. flexor hallucis longus
- m. plantaris

Sensitive innervation area

Together with the common fibularis nerve, it innervates the skin of the calf. It also innervates the skin of the soles of the feet.

Clinical picture of paresis

Plantar flexion of the toes and foot is weakened or cannot be performed at all, inversion of the foot is very important. The patient is unable to walk on tiptoe, with mild damage he can only manage to jump on tiptoe. The skin of the soles of the feet and calves is insensitive. We often find a dead reflex of the Achilles tendon.

Differential diagnosis

It is important to differentiate tibial nerve paresis itself from S1 root syndrome. The lesion occurs in severe injuries to the knee joint, such as dislocation or a displaced fracture.

However, a lesion in the area behind the medial malleolus is more common, where the cause can be a cut or slash wound, an ankle fracture, compression by a tight shoe or plaster cast, or chronic microtraumatization and compression under the ligamentum laciniatum. In this case, the pain propagates to the plantar and is painful on palpation behind the malleolus medialis (provokes Tinel's sign).

Links

Related Articles

- Palsy of the tibial nerve
- Examination of the radial nerve
- Examination of the median nerve
- Examination of the ulnar nerve

References

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