

# Lumbar intervertebral disc herniation

Lumbar spine intervertebral disc herniation occurs in half of the cases on the **L5-S1** segment. Other frequently affected floors are also L4-L5 (40-45%) and L3-4 (5%).

## Clinical symptoms

First, the patient in question experiences pain in the back, which within days to weeks turns into a pain propagating radicularly to one or both limbs. The patient tries to avoid sudden movements. Exacerbations are caused by sneezing, blowing the nose or pressure on the stool, for example. Motor and sensory disorders in the dermatome of a compressed spinal root usually develop slowly.

## S1 Root Syndrome

S1 root syndrome is manifested by pain radiating down the back of the buttock, thigh and calf to the lateral edge of the plantar and little finger. During progression, hypesthesia occurs in the described dermatome, alteration of the Achilles tendon reflex (L5-S2) and motor weakening of plantar flexion (stand on tiptoe).

## L5 Root Syndrome

The patient experiences pain radiating down the lateral side of the thigh and calf and rotating acrally to the instep. There is hypoaesthesia and dorsiflexion disorder (standing on the heel).

## L4 Root Syndrome

Projection of pain down the front of the thigh and the inside of the lower leg. The onset of hypoaesthesia is also possible. Motor deficit: weakening of extension in the knee joint (e.g. when walking up stairs). In L4 root syndrome, the patellar reflex (L2-4) is often altered.

## Patient Examination

A anamnesis is required, followed by a physical and neurological examination. Provocation maneuvers (Laségue) are performed. Acquisition of native image of the LS spine in anteroposterior and lateral projection. The examination of choice is MRI of the lumbar spine. CT, PMG and RSG can also be used.

## Treatment

We can start with the so-called "conservative therapy". This method includes relaxation, analgesics, myorelaxants, hydrotherapy, magnetotherapy. After unsuccessful conservative therapy, we use the so-called *surgical therapy*. Surgical therapy direct decompression of the printed root by removing disc masses from the spinal canal. Subsequently, excochleation of the disc from the posterior approach (80% success rate), in the postoperative period there is medical RHB and regimen measures.

## Links

## References

- SAMEŠ, M. *Neurochirurgie*. 1. edition. Jessenius Maxdorf, 2005. ISBN 80-7345-072-0.