



Swiss Scoliosis

Centre for spinal and scoliosis surgery
Zentrum für Chirurgie der Wirbelsäule und Skoliose

Stenosis of lumbar spinal canal



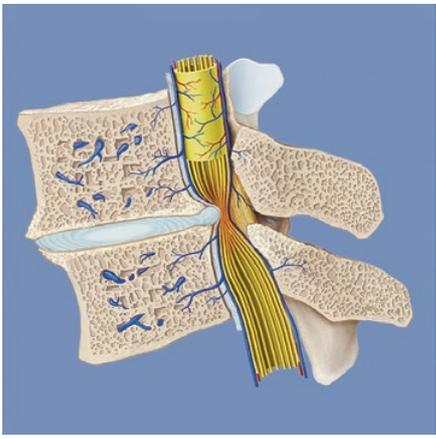
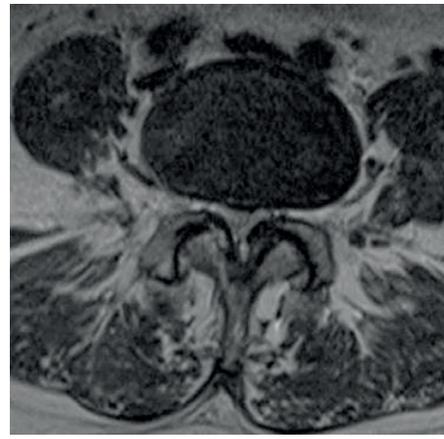


Abb. 1



Abb. 2



Stenosis of lumbar spinal canal

Lumbar spinal stenosis is common in elderly people. Degeneration of the intervertebral discs and spinal joints as well as thickening of ligaments in the spinal canal lead to stenosis of the spinal canal and compression of the spinal nerves, which should normally be free in the spinal canal allowing to move with the movement of the legs (Fig.1 & 2). This results in pain and weakness of the legs on walking. Typically the pain in buttocks and legs after a short walking distance forces the person to stop walking. After a short resting period the pain lessens and the patient can walk again.

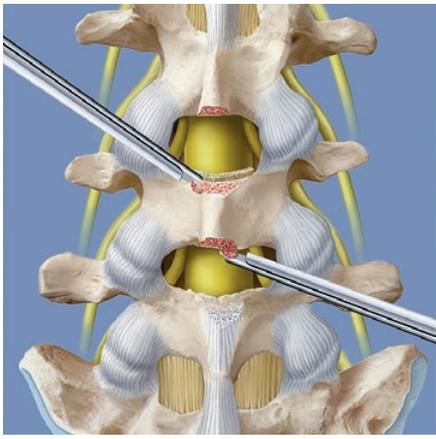


Abb. 3

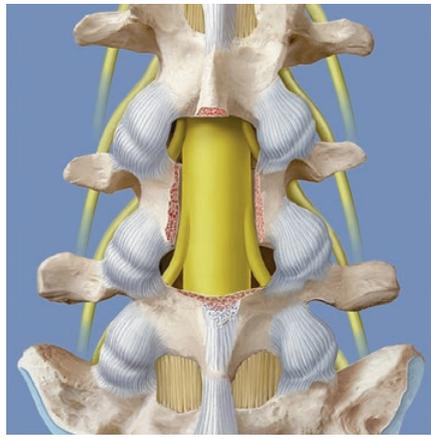


Abb. 4



Treatment

Conservative treatment

In slight to medium degree of stenosis a non-operative treatment can be tried by doing steroid injections into the spinal canal. The results are however not predictable and mostly only temporary.

Operation

When the walking distance becomes progressively shorter an operation is worthwhile even in elderly patients, to improve the quality of life. In severe cases where there are neurological symptoms like weakness of legs, bladder and bowel function, an operation is absolutely necessary.

Operation technique

A skin incision of 3-5 cm in length is made in the mid-line of the lumbar region and the muscles are retracted to the side. A microscope or magnifying glasses with head lamp are used to assist in the exposure of the spinal canal and relieve the nerves from compression (Fig.3 & 4). Often multiple segments are affected and need to be decompressed at the same time. The operation takes about 45 minutes per segment. It is also possible to do the operation in spinal anesthesia if the patient wants to avoid general anesthesia.

Postoperative treatment

Patients can stand up the same day after the operation. The hospital stay is 3-5 days. A walking stick is not necessary. The patient receives instructions from the physiotherapists to do light exercises. The first out-patient follow-up is takes place after 4 weeks, after which full return to normal daily activities is allowed.

Operation risks

Complications are seldom. Nerve root injury can occur during the direct decompression of the nerve from disc tissue and bony spurs in about 1%. In most cases the nerve function recovers with time, persisting neurological weakness is very seldom seen. Injury of the nerve sheath (Dura) can lead to leaking of spinal fluid. But this can be recognized and repaired during the operation. Very seldom a postoperative hematoma can develop and cause compression of the nerves resulting in paralysis of the legs, feet, bladder or bowel.

Prognosis

Widening of the spinal canal and decompression of the nerves results in improvement of leg pain and walking distance in over 80% of the patients. A significant improvement of the quality of life can be expected.

*Prof. Dr. med. Kan Min
Swiss Scoliosis
Centre for spinal and scoliosis surgery*

*Klinik Im Park, Seestrasse 220
CH-8027 Zürich
Telefon +41 44 209 24 40
Fax +41 44 209 24 41*

*info@swiss-scoliosis.ch
www.swiss-scoliosis.ch*