

## *Lumber spinal stenosis*

It is the condition mostly affecting adults (usually above thirty years) males are affected more than females. It is mostly due to congenital narrowing of the lumber spinal canal. There is decreased A-P diameter of the lumber neural canal with presence of recess on the side of the canal, therefore the nerve root in the area will be compressed by minimal protrusion of the disk or osteophyte formations. This condition is congenital but the presentation is delayed to over thirty years because the baby has little activity compared to adult but when he grows, he will become more active and perform more work such as lifting. Also the stenosis increases with the age so the presentation of the condition is delayed.

### **Clinical features:**

- 1- pain in the back: bilateral root pain may be sciatic like pain.
- 2- parasthesia.
- 3-neurogenic claudication, patient will complain burning sensation in front of the thigh during walking and disappear by lying down (bending forward).

Flexion (central canal partially relieved)



Extension



This condition (neurological claudication) must be differentiated from vascular claudication (intermittent claudication)

Neurological claudication	Intermittent (vascular ) claudication
1-usually pain affect anterior aspect of the thigh and foot. 2-normal peripheral pulses. 3- There is neurological deficit: numbness, parasthesia. 4- Bicycle test: the patient is able to exercise for longer period than walking.	1-usually the pain affects the calf muscles. 2-pereferal pulses are affected. 3-there is no neurological defecate. 4-bicycle test: the patient will get tired after the same period on working.

### **Bicycle test:**

Two patients, one with neurological claudication and the other with intermittent claudication.

On walking both of them get tired after the same period of time.

On the bicycle if the patient has neurological claudication, he will be able to exercise for longer period of time than on walking, this is because when the patients exercise on the bicycle, he will lean forward and this will increase the neural canal diameter and cause relieving of symptoms. Were as, the patient with intermittent claudication, he will get tired in after the same period on walking and on bicycle.

### **Investigation:**

- 1-plane X-ray.
- 2-MRI.
- 3-CT scan
- 4-myelography.

**Treatment:**

1-Conservative: bed rest and analgesia.

2-Surgery: indicated only in failure of conservative treatment, decompression laminectomy with removal of neural arches and ligamentum flavae.

