



Medicine for Managers

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Cauda Equina

Those of you who benefited from a classical education will know immediately that *Cauda Equina* is a Latin term meaning 'Tail of the Horse' and, through the linguistic skills of many anatomists over the years who resorted to creative descriptions of medical phenomena, it accurately represents the appearance of the lumbar plexus of nerves emanating from the base of the spinal cord.

Cauda Equina syndrome is a serious combination of symptoms which result from circumstances where pressure is applied to the nerves below the spinal cord



- Spinal stenosis (narrowing of the spinal canal)
- Spondylolisthesis (spon-dil-o-liss-thee-is) which is slippage of one vertebra on another causing stretching of the nerves
- Spinal fracture
- Inflammation or infection
- Tumour
- Sometimes multiple sclerosis as a result of demyelination (loss of the nerve protective sheaths)

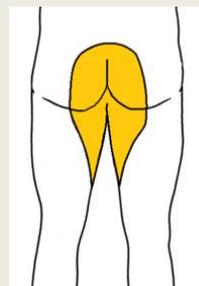
The symptoms are the result of the nerve damage and are characteristic in classic cases:

- Pain in the lower back, buttocks, area around the back passage, genitalia, inner aspect of the thighs and the legs
- Loss of sensation in the saddle area

Simply, the spinal cord is shorter than the spinal canal in which it runs and so the lumbar plexus of nerves is what hangs out from the canal at its lower end. It is a relatively rare condition.

It occurs as a result of anything that applies pressure to those nerves such as:

- The herniation (collapse) of a lower spinal disc



The saddle area is simply the area of skin which would be adjacent to the saddle if astride a horse.

- Weakness in the legs, sometimes accompanied by 'foot drop'.
- Urinary incontinence, retention or dysfunction
- Faecal incontinence
- Failure of ejaculation and orgasm

The condition, however, may present as a sudden, severe set of symptoms or gradually over a period of weeks or months. If it develops acutely, it should be treated as a **medical emergency** and the patient should be immediately admitted to hospital for an MRI scan and surgical decompression of the nerves as required. The degree of recovery will depend on the rapidity with which the diagnosis is made and the surgery carried out because permanent damage will occur to compressed nerves if the compression is not relieved in a timely manner.

If gradual then it may appear as increasing difficulty in walking, intermittent or variable urinary or bowel symptoms, loss of sexual function and lower back pain. If the complete set of symptoms is not present it may be more difficult to identify. Again, diagnosis will depend on a speedy referral for neurological review and MRI and the necessary surgery.

Following surgery there may be a prolonged period of recovery as damaged but not destroyed nerves resume their function. Exercises and physiotherapy are a key component and there may be the need for symptom specific treatment. Medication may be required for urinary dysfunction and the risk of urinary infection is increased. Pads may also be necessary for the consequences of urinary or faecal incontinence. Medication and bowel training may assist with bowel disturbances. Other treatments may be necessary to combat

or manage such residual symptoms as loss of sensation, painful feet, depression and sexual disturbances. It is the case, though, that a high percentage of the patients with the syndrome do make an excellent recovery following surgery.

I finish with an important reminder from *Wikipedia* in reference to cauda equina:

"[Treatment] costs an average of \$100,000 – \$150,000 unless the patient lives in a country where healthcare is free at the point of demand"

Long live the NHS!

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