

Beware of the Partial or Complete Cauda Equina Syndrome

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In the United Kingdom, which is not nearly as litigious as the United States, a recent study on malpractice claims showed that 65 percent of 96 cases of cauda equina syndrome (CES) progressed to claims by patients. Forty-eight percent of these cases resulted in payment of compensation for damage.¹ Delayed diagnosis and treatment was the principle reason for the claims. Patients felt that their symptoms would have been reversed if the operation were performed on time.

The most common areas affected by CES are at the L4/L5 and L5/S1 levels. There is usually a sequestration of a lower lumbar disc with the cauda equina acutely stretched over the sequestered fragment. There was no correlation between the degree of canal occlusion and symptoms or signs.² The parasympathetic supply to the pelvic viscera and sensory supply to the perineum are involved, creating a venous congestion and neural ischemia, resulting in critical ischemic damage to peripheral nerves. It is believed that a critical period occurs between 4 to 12 hours.^{2,3} Others believe that decompression within 24 hours of onset of urinary dysfunction provides the only opportunity to reverse the neurological complications, while some state that you can wait up to 48 hours.¹ Waiting beyond 48 hours usually yields permanent impairment.

The symptoms that should raise the red flag usually pertain to bowel and/or urinary dysfunction. The patient may complain of a frequent desire to urinate, but finds it difficult to void. Patients with partial CES complain of poor urinary stream and the need to strain in order to urinate. Prostate patients may give similar complaints. With complete CES, patients have overflow incontinence and complete loss of control. The patient usually states, "I find it difficult to pass urine since yesterday." This means that 24 hours has passed and nothing has been done. Constipation then occurs. In the survey conducted by NG, et al., back pain and perineal numbness were the main presenting symptoms.³ Other symptoms, in declining order of importance, were unilateral sciatica, loss of urinary sensation, urinary incontinence, bilateral sciatica, fecal soiling, painful retention, and fecal incontinence. Key presenting signs in declining order of frequency were bilateral loss of pinprick sensation, unilateral absent ankle reflex, absent anal tone, unilateral loss of pinprick sensation, unilateral foot drop, bilateral absent ankle reflex, bilateral foot drop, and absent bulbocavernosus reflex. A patient may have chronic back pain gradually progressing to sciatica, and then to bowel and urinary symptoms. If the loss of bowel and bladder control occurs over days to weeks, surgery is probably delayed. "Subjective or objective evidence of perineal sensory disturbance should be the clinical trigger for referral and imaging."³

In a paper by Moller,⁴ it was noted that all patients receiving conservative treatment for a lumbar disc prolapse should be advised to seek medical attention should voiding problems arise. Only one percent of all disc herniations result in CES.⁵ It is possible that even if short-term recovery of bladder function is poor after lumbar disc surgery for CES, the long-term outcome is not

necessarily poor. It may take months to years for almost normal voiding with no major impairment of daily activities to occur.⁶ Haldeman presented three cases of chiropractic manipulation related to causation of CES. He stated that patients who present with bowel or bladder disturbances, leg weakness, or rectal and genital sensory changes after manipulation, be recognized as experiencing a CES. Although CES is a rare condition, urinary status and the existence of numbness in the perineal area should be routine assessments with disc-type back pain patients.⁷

References

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