



## The importance of evaluating patients with cauda equina syndrome for predicting prognosis

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Dear Editor,

We read with great interest the recent original article by M. Uçkun et al. "Urgent operation improves weakness in cauda equina syndrome due to lumbar disc herniation" published in the September 2019 issue of the *Turkish Journal of Physical Medicine and Rehabilitation*.<sup>[1]</sup> Cauda equine syndrome (CES) is a rare condition which may be associated with severe disability. We would like to thank the authors for the article, as it addresses issues in CES.

Cauda equina syndrome is mainly divided into two parts: complete or incomplete in relation to urinary function and perineal sensation.<sup>[2]</sup> Incomplete CES (CESI) consists of patients who have urinary difficulties, limited urinary sensation, loss of ability to void, partial loss of bowel function, lower extremity weakness, and saddle anesthesia, while complete CES is characterized by overflow incontinence, absence control of the bladder, and complete deficit of saddle anesthesia.<sup>[3]</sup> It is well-established that the outcome for patients with CESI at the time of surgery is often favorable, while the patients with complete CES have a poorer prognosis, despite relieved compression.<sup>[2]</sup> Therefore, to diagnose patients when they are still in the phase of CESI not only urinary incontinence, but also other micturition problems should be assessed. The authors of the aforementioned article emphasize that six patients had no urinary incontinence. This makes us think these patients were in the CESI category. However, the authors did not provide any information about the patients' postoperative prognosis.

It would be valuable to state the postoperative status of these six patients in the study. In addition, the literature demonstrates that although sensation of the saddle area and sphincter tonus is normal, the anal sphincter reflex can still be abnormal in CES patients.<sup>[4]</sup> Therefore, evaluating not only anal sensation, but also the anal sphincter motor function should be kept in mind in the diagnosis of CESI patients.

The authors observed a significant increase in the pre- and postoperative motor examination; however, the level of motor function and degree of motor improvement is still unclear. As clinicians involving in the field of rehabilitation, we believe that the improvement in functional ambulation levels of patients is much more important than the isolated increase in the muscle strength alone. We consider that evaluation of the patients from this perspective would be more useful in showing prognosis in future studies.

The last issue we would like to draw attention is the sexual and bowel dysfunction in CES. Although studies which examine outcomes often focus on mobility, pain and bladder function, bowel and sexual function are rarely analyzed. The preoperative prevalence of sexual and bowel dysfunction in CES varies from 39 to 56% and from 43 to 60%, respectively.<sup>[5]</sup> A meta-analysis by Korse et al.,<sup>[4]</sup> in 2017, found that, during postoperative follow-up, the prevalence of micturition dysfunction was 48%, defecation dysfunction was 42%, and sexual dysfunction was 53%. These results indicate that the prevalence of these dysfunctions is still high after treatment. We would like to remind that assessment of sexual, urinary, and bowel dysfunction in the early period may prevent any delay in diagnosis, may result in better functional outcomes, and may improve the quality of life and well-being of patients.

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## Author Reply

Dear author,

We thank the authors for their knowledgeable comments on our study. As mentioned in this article, this is a retrospective study, and there was no data on anal sphincter motor function in the records. Similarly, sexual dysfunction was not included in the patient records. We agree with you, of course, that these data would provide a more robust analysis.

In summary, we believe that our results support the hypothesis that a significant improvement in the motor strength can be achieved in patients with cauda equina syndrome who are operated within 24 hours. Prospective studies that include your valuable recommendations may contribute to the literature.

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