



Commentary

Comment on “How to Assess the Long-Term Recovery Outcomes of Patients with Cauda Equina Syndrome before Surgery: A Retrospective Cohort Study”

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Dear Editor,

I commend the authors for their insightful work on assessing predictors of postoperative recovery in cauda equina syndrome (CES). However, I would like to offer constructive feedback on the reliance on the urinary symptom profile (USP) scale for evaluating bladder function in this study. While the USP provides a basic assessment of urinary symptoms, it is a highly subjective tool that may not fully capture the complexity of bladder dysfunction in CES patients. This limitation is particularly evident when predicting poor postoperative recovery (PPR), which relies heavily on objective, quantifiable data.

CES frequently leads to bladder dysfunction due to damage to the sacral nerve roots, making accurate and objective bladder function assessment crucial. Quantitative tools, such as urodynamic studies, residual urine measurement, and neurophysiological tests like electromyography, can provide more reliable and objective evaluations. Urodynamic tests-including cystometry, uroflowmetry, and residual urine volume measurements- quantify bladder dysfunction by assessing bladder capacity, compliance, detrusor overactivity, and bladder outlet obstruction [1-2]. Additionally, neuroelectrophysiological tests, such as sacral nerve evoked potentials and electromyography, offer valuable insights into the integrity of neural pathways involved in bladder control [3]. These techniques provide specific data that are essential for determining the severity of nerve damage and predicting long-term recovery outcomes. For instance, studies have shown significant

correlations between urodynamic parameters- such as maximum urinary flow rate (Qmax) and bladder contractility index (BCI)- and postoperative bladder function recovery [4].

In clinical practice, objective diagnostic methods, such as urodynamic studies and residual urine measurements, are considered essential for predicting postoperative outcomes. Several studies suggest that preoperative bladder dysfunction is a strong predictor of PPR. A study on postoperative residual urine volume (PVR) demonstrated that patients with a PVR greater than 200 mL had significantly poorer postoperative bladder function recovery [5]. Another study found that patients with preoperative urinary incontinence experienced worse postoperative outcomes than those without incontinence, highlighting bladder function as a key factor in predicting long-term recovery [6].

Given the authors' goal of assessing predictors for recovery after CES, I believe that incorporating objective quantitative tests- such as urodynamic evaluation, residual urine measurement, and neurophysiological testing- would strengthen their findings. These tools provide measurable outcomes free from patient-reported bias, as seen with the USP scale. Moreover, they are applicable in both inpatient and outpatient settings, making them suitable for routine clinical use. These objective measures also provide clinicians with more reliable data for predicting patient recovery, aligning with the need for robust, evidence-based practice in CES management.

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In conclusion, while the USP scale offers insight into urinary symptoms, I strongly encourage the inclusion of more objective and quantitative assessments, such as urodynamic studies and residual urine measurements. These methods offer a clearer, data-driven understanding of bladder dysfunction and can improve the accuracy of postoperative recovery predictions in CES patients. Thank you for considering these additional insights.

Data Availability

The correspondence is based exclusively on resources that are publicly available on the internet and duly cited in the 'References' section. No primary data were generated and reported in this manuscript. Therefore, the data has not become available in any academic repository.

Conflicts of Interest

None.

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