

## Introduction

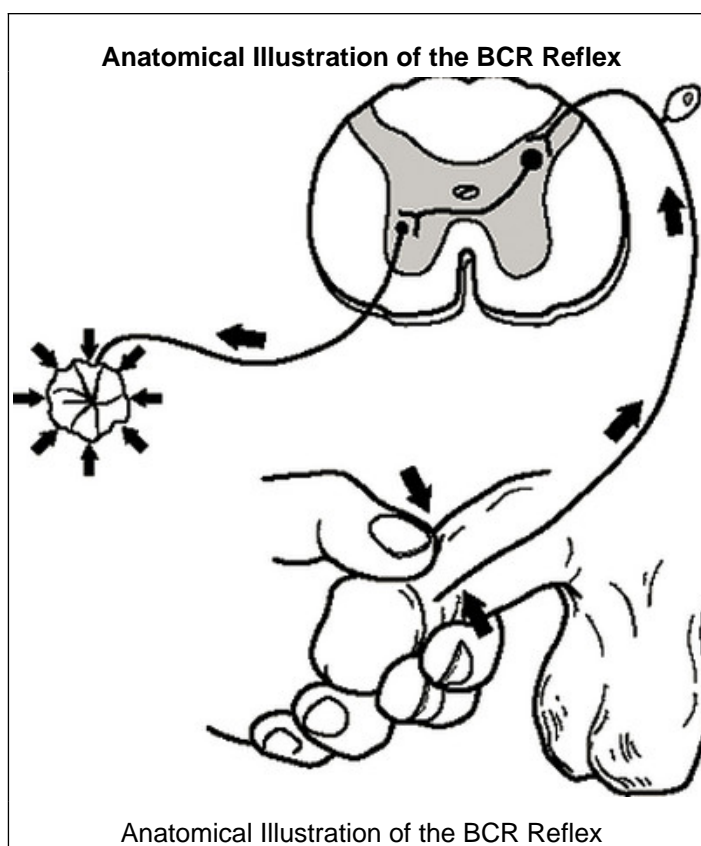
Traumatic spinal cord injury is a neurosurgical emergency that can lead to permanent debilitating sequelae, but which could be halted with timely assessment and surgical intervention. While several physical examination maneuvers are routinely included in a standard neurological examination for SCI, there is limited information in the literature on the role of the bulbocavernosus reflex in assessing the severity of spinal cord injury in neurotrauma patients.

## Methods

To determine the potential role of the BCR in diagnosing, assessing and monitoring spinal cord injury and recovery in trauma patients, we performed a comprehensive review of manuscripts and publications available in the literature published within the past 20 years, and pertaining to the use of the BCR in assessment of acute spinal cord injury.

## Results

1. The usefulness of the BCR in stratifying spinal cord injury lesions post-trauma is established in case reports available in the literature.
2. Studies showed that the BCR could be used to predict recovery potential in SCI patients.
3. However, it was not frequently reported as a commonly performed test for neurological examination in the acute setting.



## Conclusions

1. The importance of the bulbocavernosus reflex has been demonstrated in the current medical literature, as a useful tool for stratifying motor neuron lesions in patients following a spinal cord injury.
2. Nonetheless, its use in neurosurgery practice is still widely undocumented and it is not included in international guidelines and care algorithms for spinal cord trauma, such as the International Standards for Neurological Classification of Spinal Cord Injury.
3. Further research needs to be done and reported to support its prognostic value for this patient population.

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