

Central sensitization

Central [sensitization](#) (CS) is a [hyperexcitability](#) that is manifested by the increased response of the [central nervous system](#) to [sensory](#) stimuli, from things that are not typically painful. The first evidence of this type of hypersensitivity dates back to [1933](#). Living with any type of pain, acute or chronic, can interfere with many normal aspects of everyday life. A handshake, a hug, anything regarding sense of touch can be greatly affected by [chronic pain](#), particularly in those suffering from central sensitization disorders. Patients who find themselves suffering from forms of central sensitization experience pain from stimuli that should not induce pain. Things as gentle as brushing the back of a hand with a cotton ball can cause extreme, intense pain.

It has been shown that the presence of [Central Sensitization](#) may have a negative effect on the clinical picture in some [musculoskeletal diseases](#) and also have a negative effect on [spinal procedures](#).

To investigate the effect of CS on interlaminar [epidural steroid injection](#) (ILES) treatment outcomes in patients with [cervical disc herniation](#) (CDH).

Observational study in a university hospital pain management center.

Patients, who underwent ILES between 2020-2021 due to CDH, were included in the study. The Numeric Rating Scale (NRS-11), Neck Pain and Disability Scale (NPDS), Self-Administered Leeds Assessment of Neuropathic Symptoms and Signs (S-LANSS), and Short Form-12 (SF-12) were used for evaluation of patients. Patients were assessed before the procedure, at the first hour, and 3 months after the procedure. The presence of CS was investigated by the Central Sensitization Inventory (CSI).

A total of 51 patients were included in the study. Twenty-three of the patients had CS, as assessed by the CSI. Although, patients who underwent ESI, had significantly lower NRS-11, S-LANSS, and NPDS scores, and higher SF-12 scores at all follow-up points. The first and third months, NRS-11, S-LANSS, and NPDS were significantly higher, and SF-12 scores were lower in the CS group compared to patients without CS.

Limitations: The short follow-up period and relatively low number of patients can be considered as a limitation. The fact that CS is not evaluated with a more objective method, such as Quantitative Sensory Testing (QST), can be considered as another limitation. Since most clinicians use CSI, so from a "real world" perspective the lack of QST may be observed as a strength of the study. The third limitation is that we did not evaluate the patients' pre- and posttreatment analgesic consumption. Finally, we did not include patients with a history of psychiatric illness, but not evaluating the current psychiatric conditions of the patients could be considered a limitation. Nevertheless, the main strengths of this study are its prospective design and, to our knowledge, it is the first study to explore the effects of CS on cervical ESI treatment.

The presence of CS has a negative effect on [pain scales](#), [disability](#), and [quality of life](#) in patients undergoing cervical ESI due to CDH ¹⁾.

Pending classification

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