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Identifying Patients at Risk of Chronic Postoperative Pain Using Cuff Algometry

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Abstract

Objective

Quantitative sensory testing (QST) aims to assess facilitation of spinal pain mechanisms by Temporal Summation of Pain (TSP) and balance in pain inhibition and facilitation by Conditioned pain modulation (CPM).

The aim was to investigate associations between preoperative TSP and CPM response and risk of chronic pain.

Materials and Methods

Preoperative CPM and TSP was obtained by cuff algometry.

Clinical information was recorded at baseline and after six months.

Results

Patients with chronic pain demonstrated impaired CPM response: -10.49 95%CI (6.61; 14.39) kPa, p=0.010. No difference was reported in TSP: 0.50 95%CI (-0.19; 1.19), p=0.153.

CPM response was associated with reduced risk of chronic pain: RR 0.98 95%CI(0.97; 0.99) / kPa, p=0.002 (adjusted for preoperative pain, tumor histology, age and sex).

Conclusions

This study suggests that impaired preoperative CPM response is an independent risk factor of chronic postoperative pain.

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