

## **ASSESSMENT OF LOCAL MECHANICAL PAIN SENSITIVITY IS NOT DIAGNOSTIC FOR CERVICAL ZYGAPOPHYSIAL JOINT PAIN**

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**Background and aims:** The zygapophysial joints are well documented sources of chronic neck pain and headache. Unfortunately, simple non-invasive diagnostic methods for this condition lack scientific validation and the only validated tool to diagnose zygapophysial joint mediated pain are the invasive zygapophysial joint nerve blocks. We hypothesized that symptomatic joints display lowered pressure pain thresholds, which would allow the development of a non-invasive quantitative diagnostic tool. **Methods:** Patients with unilateral chronic neck pain meeting the clinical criteria for diagnostic zygapophysial joint nerve blocks were included. The exact location of each zygapophysial joint (C2-3 until C6-7) of the painful and non-painful side were located by ultrasound. Pressure pain thresholds (PPT) were measured directly over each of the joints using an electronic pressure algometer. Afterwards conventional zygapophysial joint nerve blocks were performed as diagnostic “Gold Standard”.

**Results:** 33 patients underwent zygapophysial joint nerve blocks. Zygapophysial joint pain was present in 14 patients, of whom 13 were positive for one joint, one patient was positive for two joints. There was no statistically significant difference in PPT between the affected and the contralateral joint. There was no statistically significant difference in PPT between the affected joint and non-affected joints on the same side. No statistically significant difference in PPT at the painful side was found between the patients with and without zygapophysial joint pain.

**Conclusions:** The assessment of mechanical pain thresholds does not reliably help to distinguish zygapophysial joint mediated pain from other sources of pain in patients suffering from chronic, unilateral neck pain.

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