

## **Pattern of mechanical pain sensitivity assessed by quantitative sensory tests in Danish patients with neuromyelitis optica spectrum disorder (NMOSD)**

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**Background and aims:** Neuromyelitis Optica Spectrum Disorder (NMOSD) is a rare recurrent autoimmune disease. Pain has only recently been acknowledged in NMOSD. Quantitative sensory testing of these patients has revealed inconsistent results including dynamic mechanical allodynia, and paradoxical heat sensations. However, pattern of altered sensitivity to mechanical or thermal stimuli within craniofacial regions is still lacking. Hence, the aim of this study was to identify if any abnormalities exist. **Methods:** Patients (N=8) diagnosed with NMOSD were invited and 4 patients (3 F, 1 M, 35 ± 6.38 years) were enrolled. Mechanical pain thresholds were assessed by brush test, electronic von Frey test, and pressure algometry at frontalis, temporalis, and masseter muscles. Facial pain and headache were determined through questionnaires and interviews. Pattern of facial temperature was captured by a thermographic camera. **Results:** Lowered pressure pain threshold (PPT) values were found in all patients. None of the patients exhibited a dynamic mechanical allodynia. Von Frey responses were within the normal range. Frequent mild to moderate craniofacial pain was reported and described as "cramping" and "tender", predominantly around the eyes, and occiput. Influence of pain on general activity and mood were reported. No abnormalities or asymmetry in facial skin temperature were detected. **Conclusion:** Quantitative sensory tests demonstrated a tendency towards lower PPT values within the craniofacial region of the enrolled NMOSD patients. Pain was also a common finding. Results call for a larger study for further investigations that will potentially lead to an optimal pain management, and enhancement of life quality. **Disclosure:** Nothing to disclose