



## Characterization of facial pain in individuals with hemifacial spasm

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### Background

Hemifacial spasm (HFS) is defined by involuntary facial contractions. Facial pain associated with HFS is observed in practice, although there is still little research on the subject.

### Objective

To characterize facial pain in HFS patients and to analyze if pain was associated with clinical spasm severity, quality of life (QoL), anxiety, depression and insomnia.

### Methods

Cross-sectional study involving 59 patients of a public hospital. Cognitive impairment, use of botulinum toxin in the last three months and other movement disorders were exclusion criteria. Data were obtained using the following instruments: sociodemographic questionnaire; structured questionnaire of facial pain characteristics (intensity in a visual analog scale: VAS, frequency, location); McGill pain questionnaire; hemifacial spasm grading questionnaire (HFS-Score) for clinical severity and QoL; hospital anxiety and depression scale (HADS); and insomnia severity index (ISI).

### Results

Among 59 patients, 39 (66.1%) were female and mean age was 65.9 years (SD: 12.9). Average diagnosis time was 15.5 years (SD: 8.5) and time to pain onset was 5.5 years (IQR: 15.7). Most common spasm side was left: 36 patients (61%). 26 patients (44.1%) reported facial pain, mean intensity was 6.1 (SD: 2) in VAS and frequency of 5 (IQR: 12) days/month. The facial pain locations were: periorbital in 21 cases (80.7%), maxillary in 5 (19.2%) and mandibular in 2 (7.6%). Auricular and whole hemiface were mentioned in 1 case (3.8%) each. 25 patients (96.1%) described pain ipsilaterally to spasm, and 1 (3.9%) described pain bilaterally. Most common descriptors for pain were: pulling (11 patients), itchy (10 patients) and annoying (10 patients). Association between facial pain and worse QoL was found ( $p$ : 0.038; Mann-Whitney test). Facial pain was also related to insomnia ( $p$ : 0.037; Fisher exact test). No association was found between facial pain and clinical spasm severity, age, anxiety or depression.

### Conclusion

Facial pain is common in patients with hemifacial spasm and generally occurs on the same side, is moderate in intensity and is associated with a worse quality of life and insomnia.