



The Importance of Migraine Lalophobia and its Association With Other Symptoms and Comorbidities

Elcio Juliato Piovesan¹; Marco Antonio Takashi Utiumi²; Arthur Felipe Strutt Bernardes³; Henrique Miotto Zolet⁴; Pedro Andre Kowacs⁴

1. Hospital de Clinicas da Universidade Federal do Paraná e Clínica de Neurologia São José, Curitiba - PR - Brazil;
2. Hospital de Clínicas da Universidade Federal do Paraná, Curitiba - PR - Brazil;
3. Hospital de Clinicas da Universidade Federal do Parana e Clínica de Neurologia São José, Curitiba - PR - Brazil;
4. Hospital de Clinicas da Universidade Federal do Paraná, Curitiba - PR - Brazil.

Introduction

Migraine is a complex neurological disorder characterized by headache and other pain-related symptoms such as photophobia, phonophobia, allodynia and misophonia. Lalophobia could be defined as a difficulty or aversion to speaking. Some migraineurs report lalophobia during a migraine attack since speaking can lead to a worsening of the headache. However, there is a lack of studies exploring lalophobia, especially in migraineurs.

Objectives

We aimed to assess whether lalophobia is present in episodic migraine attacks and estimate its prevalence. We also explored the phase in which lalophobia was more frequently reported and which other symptoms and comorbidities were correlated with it.

Methods

This was a multicenter, observational, and cross-sectional study. All patients diagnosed with episodic migraine according to the ICHD-3 by a trained neurologist were invited to participate.

Questionnaires were administered during a headache attack up to 72 hours after its resolution. Questions covered epidemiological data, semiological aspects of the four phases of migraine, the presence of misophonia (intolerance to specific auditory stimuli), disability (MIDAS), cutaneous allodynia (12 item Allodynia Symptom Checklist, ASC-12), depression symptoms (Patient Health Questionnaire, PHQ-9), anxiety symptoms (General Anxiety Disorder, GAD-7), autonomic symptoms (COMPASS-31) and other features associated with migraine. All participants who reported they were afraid to speak during an attack were considered to have lalophobia.

Results

100 patients were invited to participate in the study, and 53 completed all the assessments. The mean age was 33.2±12.3 years, 47 (88.7%) participants were female, 23 (43.4%) reported aura, and 27 (50.9%) were not taking any preventive treatment. Lalophobia was reported by 42 subjects (79.2%, 95% CI 68.3% to 90.2%); 84.9% of those had the symptom during the headache phase. It was associated with the MIDAS score ($p=0.006$, correlation ϕ 0.397) and fatigue as a trigger factor (or premonitory symptoms) for migraine ($p=0.01$, ϕ 0.352). There was a trend towards worse anxiety symptoms ($p=0.076$) and movement allodynia ($p=0.079$) in those with lalophobia. No association was found with misophonia, cutaneous allodynia, depression, premonitory symptoms, autonomic symptoms, aura, other symptoms and comorbidities.

Conclusion

Lalophobia was a highly prevalent symptom of migraine attacks, especially during the headache phase. It was associated with more debilitating cases and seems to be a particular manifestation, different from cutaneous allodynia, phonophobia and misophonia, involving peculiar mechanisms and deserving future exploration. In our discussion the anterior insula was the main structure involved between pain and disease expression.

Keywords: speech circuits; lalophobia; migraine; insula cortex.