



## Primary stabbing headache in patients with chronic or episodic migraine: Prevalences, correlations, and characteristics

Katariny Meneses do Amaral, Vinícius Baginski Treska, Elcio Juliato Piovesan

Universidade Federal do Paraná, Curitiba, Brasil

### Introduction

Headache is one of the five most common disorders affecting humans, impacting quality of life, personal costs, and the healthcare system. Primary Stabbing Headache (PSH) is characterized by a lancinating pain lasting fractions of a second that occurs spontaneously in the absence of organic disease of the underlying structures or cranial nerves and is one of the least studied headaches to date.

### Objective

This study evaluated the prevalence and clinical characteristics of PSH, correlating it with differences between chronic migraine (CM) and episodic migraine (EM).

### Methods

This was a descriptive observational cross-sectional case-control study conducted between September 2023 - June 2024. Patients from the UFPR headache clinic with CM/EM and healthy controls (HC) were included. Data were collected through anamneses guided by specific questionnaires containing: semiological aspects of migraine, characteristics of PSH, allodynia, depression (PHQ-9) and anxiety (GAD-7).

### Results

Patients with EM (n=49), CM (n=89), and HC (n=48) were evaluated. PSH was present in 31% of EM cases and 49% of CM cases ( $p=0.036$ ); no patients in the HC group presented PSH. Pain intensity in the CM group was 8.3 points on the VAS, and 6.5 points in the EM group ( $p<0.001$ ). The duration of the stabbing pain ranged from fractions of a second to seconds in 73% of cases, with subsequent discomfort lasting a few minutes. The frontal location of the stab was the most prevalent and equally common in both migraine groups (71.4%). Patients with PSH in the CM group compared to the EM group revealed more prevalent premonitory symptoms such as emotional stress (97.6%) and fatigue (50%) with  $p=0.006/0.044$ , respectively. These patients had a higher proportion of visual difficulties and other aura symptoms, including tingling, loss of strength, balance/coordination difficulties and weaker arm - all with  $p<0.05$ . Depression and anxiety questionnaire scores showed higher average scores in CM patients with PSH.

### Conclusion

PSH is more prevalent and intense in CM patients, possessing some specific features that suggest shared neurobiological mechanisms. Despite the contributions, limitations include cross-sectional design and self-reporting.