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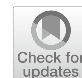
LETTER TO THE EDITOR



Double whammy: a concurrence of two disorders with a shared trigger

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Dear Editor,

With great interest, we read the case report by Ziso and Larner [1], which describes a patient with transient global amnesia (TGA) and a primary headache associated with sexual activity (PHSA). The authors suggest a shared pathophysiological mechanism for the cooccurrence of these disorders. Based on our case report presented below, we would like to pose another possible explanation.

A male, 63 years old, presented with an acute onset of headache directly after orgasm. Besides the headache, at the same time the patient also reported retrograde and anterograde amnesia. After a few hours, the headache disappeared, but the amnesia was still present at the emergency department. Anterograde amnesia was more obvious than retrograde. Patient never experienced this before, although he did once suffer from a typical migraine aura without headache [2].

During neurological examination, the patient repeatedly asked what he was doing in the hospital, and what happened. Orientation in place, time and person was intact. Three-word registration was normal, and recall after 2 min was normal, but after 15 min, there was no recall of the three words. Further neurological examination was normal. Laboratory examination and computed tomography scan of the brain revealed no abnormalities. As the patient was still suffering from amnesia, we admitted him to the ward.

The day after admission, patient had no residual symptoms, the amnesia stopped around 10 h after the onset. He also reported to have experienced the headache directly after orgasm ten times before. The patient was diagnosed with TGA and discharged.

In this case, the amnesia of the patient fulfilled the criteria for TGA, with an eyewitness account for anterograde amnesia, vanishing of the symptoms within 24 h, and no other focal neurological signs [3]. Furthermore, the headache fulfilled the criteria for PHSA, with at least two episodes of headache lasting between 1 min and 24 h with severe intensity and/or with mild intensity up to 72 h provoked by and occurring only during sexual activity.

TGA is described frequently preceded by sexual intercourse (9–12%) [3] and accompanied by headache in 11–40% of cases. Although the exact pathophysiology of TGA remains unknown, imaging studies suggest there is a critical role for the CA1 neurons in the hippocampus [3]. A possible metabolic stress reaction, resulting from the precipitating factor (e.g. sexual intercourse or a Valsalva maneuver), might lead to temporary disfunction of CA1 neurons, resulting in acute amnesia, which is resolves in hours [3].

The exact pathophysiology of PHSA remains undiscovered as well. Suggested mechanisms for PSHA include muscle tension/contraction, increased intracranial pressure due to a Valsalva maneuver (which is a suggested mechanism for TGA as well) during orgasm or disruption of autoregulation of cerebral vasculature [4].

This case shows a patient, although undiagnosed, already familiar with PHSA, also reports a one-time TGA, with a well-known precipitating factor for both. This is illustrated by an older case report found in the literature of a patient with migraine without aura presenting with five episodes of TGA over a period of 18 years, which were always preceded by sexual intercourse, who also experienced multiple probable PSHA attacks [5]. Although the suggestion of a shared pathophysiology is tempting, it might simply be a concurrence of two separate disorders, with a shared precipitating factor.

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Compliance with ethical standards

Conflict of interest The authors report no conflicts of interest.

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