Rash Associated With Panic Attacks

To the Editor: We present the case of a patient who experienced panic attacks associated with a rash. To our knowledge, there is one case series[1] associating idiopathic urticaria with panic disorder, and in that case, the patient's urticaria and anxiety responded to either fluoxetine or sertraline.

Case report. Ms A is a 32-year-old woman with a history of generalized anxiety disorder and bipolar I disorder. She presented to the outpatient psychiatry clinic complaining of increased anxiety and panic attacks over the past month. She reported that the panic attacks had increased in frequency, duration, and intensity. Two weeks prior, she began to develop a rash after each panic attack, and the rash would subside after 24 hours. She described the rash as "small bumps" and "speckles" that spread around her neck, trunk, and arms. The rash was described as itchy, and the itchiness responded to diphenhydramine. Ms A further explained that her skin always becomes warm during panic attacks but that she rarely sweats. She reported having 4 panic attacks with rashes over the past 2 weeks. The rash did not occur with the intake of medications, at a particular time of the day, or with food. Rather, the only correlate that she could think of was the panic attacks. Ms A also reported memory and word-finding problems.

At the time of the visit, she was taking lithium carbonate 300 mg twice/day for bipolar disorder, topiramate 100 mg twice/day for bipolar disorder, and hydroxyzine 25 mg 3 times/day for anxiety. She had not had a manic episode in 2 years and was currently not complaining of depressive or manic symptoms. We decided to discontinue topiramate and initiate gabapentin 100 mg 3 times/day for anxiety and mood stability. We speculated that, due to topiramate's blockade of carbonic anhydrases, Ms A was experiencing an increased body temperature with no sweating. She followed up in our clinic 5 weeks later stating that she was no longer experiencing the rash and her panic symptoms had improved.

A brief literature review was conducted. We found that tompiramate has been reported to cause hypohidrosis,[2–4] although the specific mechanism remains unknown. It is speculated that the effect on sweating is related to the blockade of carbonic anhydrases,[2,4] but further research is needed to establish a causal relationship. The blockade of carbonic anhydrases and the relation with sweating is important in our case because it is a possible mechanism for Ms A's rash. Changes in anxiety level have been shown to be related to changes in one's body temperature.[5,6] When faced with the psychological stress of a written examination, subjects have been shown to have an increased body temperature compared to when in a calm environment.[5] A similar effect has been documented in athletes prior to the start of a sporting event.[7] Animal studies using mice have explored a possible connection between basal body temperature and psychological stress.[8,9] Sweating also has been found to have a correlation with an individual's level of stress.[10] In subjects with social anxiety disorder, the presence of hyperhidrosis corresponded to an increased manifestation of physiologic symptoms.[10] These studies show the correlation between stress level and body temperature, and if sweating is impaired, complications such as rash may potentially arise.

Our case highlights the importance of cross-checking medication side effects and mechanisms of action when a patient reports an unexpected symptom associated with his or her illness. It is not certain that Ms A's rash was due to topiramate, but its resolution after stopping the topiramate makes this cause more plausible. Likewise, it is possible that the rash was specifically due to her panic attacks and unrelated to topiramate, as shown in the case series by Gupta and Gupta,[1] and that with better anxiety control, her rashes ceased.

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