

# Postictal Periorbital Petechiae

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A 24-year-old woman was seen in the emergency department following a second unprovoked nocturnal generalized tonic-clonic seizure that had been witnessed by her husband. After initial moaning, clonic movements were seen for an estimated duration of 2 minutes. The first seizure had occurred during pregnancy a year earlier. No petechial rash had been recorded during the first episode. Neurological examination, EEG, and MRI of the brain were normal.

Significant clinical findings were a left lateral tongue bite and bilateral symmetric periorbital petechiae (Figure 1). No other injury was present. Further questioning revealed a history of epilepsy in her sister. Hematological parameters were normal, with normal platelet counts and prothrombin/partial thromboplastin time (PT/PTT) values. Although the clinical history was strongly suggestive of epilepsy in this patient, the presence of periorbital petechiae further supported recognition of the nocturnal spell as a seizure.

Periorbital petechiae are a rare finding that can be helpful in making a diagnosis of epilepsy when the history is unclear.<sup>1,2</sup> They resolve spontaneously. Concomitant subconjunctival hemorrhages have been previously described and attributed to capillary rupture during the tonic phase of seizures.<sup>3,4</sup> Similar eruptions can be seen with traumatic asphyxiation, allergic reactions, and coagulopathy, which should be excluded by history and laboratory evaluation. Proposed mechanisms for their occurrence in epilepsy include pressure-induced capillary leakage, as seen in prolonged coughing and vomiting. Other possible mechanisms include cytokines inducing platelet dysfunction, neuronal

release of vasoactive substances, and vagal nerve dysfunction.<sup>4</sup> Petechial rashes are not specifically recorded in seizure severity scales, and further study would be required to establish the relationship between their occurrence and seizure duration and severity.<sup>5</sup>

## DISCLOSURES

Muhammad Ahmer Wali and Matthias Georg Ziller hereby declare that they have nothing to disclose.

## STATEMENT OF AUTHORSHIP

Both authors contributed to data collection, writing, and critical revisions.

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**Figure 1:** Bilateral symmetric periorbital postictal petechiae were observed in a patient after a nocturnal generalized tonic-clonic seizure.

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