

Postictal Periorbital Petechiae

Muhammad Ahmer Wali, Matthias Georg Ziller

Keywords: Epilepsy, Seizures, Neurological examination, Petechiae, Neurology, Clinical

doi:10.1017/cjn.2017.235

Can J Neurol Sci. 2018; 45: 92-92

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.^{1,2} They resolve spontaneously. Concomitant subconjunctival hemorrhages have been previously described and attributed to capillary rupture during the tonic phase of seizures.^{3,4} 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.⁴ 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.⁵

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.

From the Faculty of Medicine, McGill University, Montreal, Quebec, Canada (MAW); St. Mary's Hospital Centre, McGill University, Montreal, Quebec, Canada (MGZ).

RECEIVED APRIL 1, 2017. FINAL REVISIONS SUBMITTED MAY 6, 2017. DATE OF ACCEPTANCE JUNE 14, 2017.

Correspondence to: Matthias Georg Ziller, St. Mary's Hospital Centre, McGill University, 3830 Lacombe Avenue, Montreal, Quebec, H3T 1M5, Canada. Email: matthias.ziller@mcgill.ca.