

Dermatologic Finding During Migraine Headache Attack



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Objective

To report a patient with migraine and ecchymotic lesions in relation with migraine attacks possibly due to trigeminovascular activation and autonomic vascular dysfunction.

Case description

A 21 year-old woman diagnosed with episodic migraine with aura since the age of 14, who described her headaches as hemicranial, throbbing pain associated with sensitivity to light and sound, with a frequency of five to six severe episodes per month, some of them accompanied by visual aura.

She recently noticed eyelid ecchymosis ipsilateral to the side her pain developed. It appeared on both, right or left side and upper or lower eyelids depending of the pain side during the attack. The ecchymosis usually lasted a couple of days and was not associated with oedema or vegetative manifestations.

Neurologic examination and brain MRI were normal, blood workup revealed no evidence for vasculitis or coagulation disorders. She started topiramate 25 mg bid with improvement of headache frequency and resolution of periorbital ecchymosis. On a follow up calls she reported baggy eyes during a migraine attacks but no ecchymosis.

Conclusion

Our case describes an unusual finding during migraine attacks, such as periorbital ecchymosis with a possible pathogenic mechanism of autonomic vascular dysfunction following trigeminovascular activation during migraine attacks.

Previous reports have described red forehead dot syndrome, red ear syndrome and periorbital ecchymosis in migraine patients. It has been hypothesized that activation of the trigeminovascular system leading to extracerebral vasodilatation with extravasation of red blood cells in the V1 distribution of the trigeminal nerve via the release of vasoactive peptides could cause these phenomena. Another factor may be coagulation changes with heparin release from mast cells and basophilic leukocytes, previously documented during migraine attacks.



Bibliography

1. Nozzolillo et al. Migraine associated with facial ecchymoses ipsilateral to the symptomatic side *J Headache Pain* (2004) 5:256–259.
2. Rima M. Dafer and Walter M. Jay. Atypical Chronic Headache and Recurrent Facial Ecchymosis: A Case Report *Neuro-ophthalmology*, 35(2), 76–77, 2011.
3. Mesude Ozerden Tutuncu, Vasfiye Burcu Albay. Periorbital ecchymosis can be a symptom of migraine: A case report. *Neurology Asia* 2021; 26(2): 419 – 421.
4. Prahlad, Nitin. Teaching NeuroImages: Red forehead dot syndrome and migraine revisited *Neurology* 2015;85:e28.
5. Sabrina Berdouk Sobia Khan. Migraine with extensive skin markings: a case report. *International Journal of Emergency Medicine* 2018 11:32.