Teaching NeuroImages:

Red ear syndrome

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Figure Red pinna and punch biopsy

An inflamed left pinna (A). Punch biopsy shows a nonspecific dermal (10× magnification) (B) and perivascular (40× magnification) (C) inflammation. Hematoxylin and eosin stain.

A 41-year-old man presented with a 3-year history of unilateral pulsatile headaches associated with nausea, vomiting, photophobia, and 1 to 2 episodes per day of red, burning, itchy, and painful left pinna, lasting 4 hours, triggered by touch, increased temperature, and sun exposure (figure). The migraine headaches and the red pinna were temporally associated. His brother has migraines only. Examination was normal. MRI of the head and cervical spine including angiogram was unremarkable. Blood and CSF analyses were normal. Ear symptoms were worse with steroids. Beta-blockers and amitriptyline were unhelpful. Gabapentin has shown some benefit in reducing the

frequency of attacks. This condition is called red ear syndrome and its pathophysiology is unclear. Secondary causes such as thalamic syndrome, temporomandibular joint dysfunction, carotid body adenoma, upper cervical spine lesions including Chiari I malformations, and vertebral artery compression at C3 need to be ruled out and migraine prophylaxis considered in migraine-related attacks.^{1,2}

AUTHOR CONTRIBUTIONS

Dr. Kalladka: patient review, drafted manuscript, and revisions. Dr. Paul: biopsy reporting and review of manuscript. Dr. Tyagi: consultant in charge and critical review of manuscript.

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