Clinical Images

Facial Flushing with Food: The Auriculotemporal Syndrome

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Figure 1. Baseline exam.

A 25-year-old woman complained of a bilateral facial rash that developed while consuming a variety of foods, including citrus fruits and sweets. The rash had occurred throughout her life without an inciting event and was not associated with other symptoms. In clinic, the rash was reproduced within one min after chewing a tart candy (Figs. 1 and 2).

Auriculotemporal syndrome (AS), also known as gustatory flushing or Frey's syndrome, is an under-recognized cause of facial erythema that is commonly mistaken for a food allergy.

Figure 2. Rash after ingestion of tart candy.

It is likely caused by aberrant regeneration of parasympathetic nerves that innervate sympathetic cutaneous vasculature and sweat glands, resulting in facial flushing and sweating following gustatory stimuli¹. AS is typically unilateral and occurs in approximately 23 % of individuals following parotid surgery². Trauma, inflammation, and local tumors are among reported causes in non-postoperative cases, but are not always identified by patient history. Bilateral involvement may be explained by congenital malformation, although is usually seen in infants³. The persisting symptoms described by our patient are unusual.

No testing is needed to confirm the diagnosis. Treatment is usually not required, since spontaneous remission typically occurs within 2–5 years among non-postoperative cases⁴. For severe cases, anticholinergics, topical antiperspirants, botulinum toxin injection, or surgery provide variable success.

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