CLINICAL IMAGES

Lingual Raynaud phenomenon

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The authors have obtained patient consent.

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A 45-year-old woman with squamous cell carcinoma of her right tonsil (stage T2N2bM0) was given accelerated fractionated radiotherapy (7000 cGy in 35 fractions over 6 wk), concurrently with cetuximab. After completing radiotherapy, she did well for 18 months, when she had intermittent episodes of blue discoloration of her tongue (Figure 1). These self-limiting episodes happened several times a day, apparently precipitated by cold weather or drinking cold drinks. She reported no tingling, pain or numbness. The symptoms did not involve her digits. There was no history of atherosclerotic or rheumatic disease, and she was not taking any medications used to treat Raynaud phenomenon.

The findings on physical examination were normal, aside from radiation-related fibrosis and telangiectasia involving the soft palate and right tonsil (Figure 1A). Magnetic resonance imaging

showed postradiotherapy changes in tongue tissue; no vascular changes were identified, and sublingual arteries were normal. There was no evidence of tumour recurrence. A diagnosis of Raynaud phenomenon of the tongue was made.

Raynaud phenomenon is an exaggerated vasoconstrictive response to various stimuli, including cold temperature and emotional stress. A localized defect in arterial and arteriolar vasoconstriction is thought to underlie the disorder.¹ Involvement of the tongue is rare but can occur in patients with autoimmune diseases like lupus, scleroderma and Sjögren syndrome.^{2,3} Lingual Raynaud phenomenon following radical radiotherapy is clinically striking but uncommon.⁴ No specific treatment is recommended.

Our patient continues to have intermittent, self-limiting attacks, but is otherwise well; she avoids sudden cold exposure of her tongue.

References

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Figure 1: Blue discoloration of the tongue, predominantly on the left side, in a 45-year-old woman. The tongue changed from a normal pink colour (A) to a cyanotic purple (B), and then returned to a normal colour in a span of few minutes (see video, www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.140784/-/DC1). The photos and video are from different attacks, when the patient was exposed to cold weather. Radiation-related telangiectasia can be seen on the soft palate (A).

A video showing the changes in tongue colour is available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.140784/-/DC1.

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