

Raynaud's of the Tongue

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ABSTRACT

We describe a 40-year-old lady who presents with a painful white tongue on exposure to the cold. The differential diagnosis and investigations are outlined with a discussion about this unusual presentation of a common problem.

LEARNING POINTS

- Raynaud's can affect areas of the body besides the digits.
- Lingual Raynaud's should be considered in patients with transient tongue pain.
- Alternative diagnoses should be sought if ulceration or permanent symptoms develop.

KEYWORDS

Raynaud's, tongue

CASE DESCRIPTION

A 40-year-old woman presented with intermittent, 20 minute episodes of sequential painful white and blue tongue discoloration upon exposure to the cold. The peripheral rim of her tongue was relatively spared and on re-warming, the tongue became bright red associated with a burning sensation. The episodes caused moderately severe discomfort with dysarthria and stiffness at the back of the tongue as well as hypersalivation. The patient had a past history of vitamin B12 deficiency and was a smoker. There was no concurrent digital vasospasm of fingers or toes, lips or nipples. She did not have a past medical history of any connective tissue disease.

Physical examination was normal but the tongue colour change is shown in *Figure 1*. Laboratory testing was negative for anti-nuclear antibody and rheumatoid factor. Other blood investigations demonstrated no abnormalities in biochemistry, haematology, ESR or clotting profile.



Figure 1. Painful whiteish-blue tongue discoloration caused by cold air followed by normal colour on re-heating

DISCUSSION

Raynaud's phenomena is an exaggerated vascular spasm in response to a stimulus such as cold or stress. It is manifested clinically as dramatic colour changes in the skin of the digits^[1]. Less frequently, the tip of the nose, the nipples or the earlobes can also be involved^[2]. Initially, the skin becomes pale due to vasoconstriction, and then dusky blue from deoxygenation of haemoglobin within the tissues. Subsequent ischaemia of the affected tissues stimulates vasodilatation. This causes rapid inflow of oxygenated blood causing the skin to flush before it finally returns to its normal colour. Only the white and blue colour changes are required for an episode to be diagnosed as Raynaud's^[1]. Raynaud's is classified as primary (no underlying cause) or secondary (an underlying medical condition). Lingual Raynaud's is rare due to the excellent collateral circulation in the tongue but has been previously reported in association with radiotherapy^[1] and scleroderma^[2], but interestingly is not associated with poorer outcomes in autoimmune conditions^[2]. Transient dysarthria and paraesthesia are also recognised associated symptoms^[3]. Persisting symptoms or ulceration should alert the clinician to an alternative vascular cause such as vasculitis, atherosclerosis or labile blood pressure.

The mainstay of treatment is prevention of attacks by avoiding triggers such as the cold, minimising stress and smoking cessation. If these lifestyle changes are not sufficient in controlling the attacks or if the patient has secondary Raynaud's, vasodilators such as calcium channel blockers can be used^[1].

REFERENCES

1. Ghiam AF, Cho J. Lingual Raynaud phenomena. *CMAJ* 2015;**187**:1160.
2. Lioger B, Diot E. Raynaud's phenomenon of the tongue: uncommon presentation of a classical sign. *QJM* 2013;**106**:583–584.
3. Chatterjee S. Raynaud phenomena causing lingual pallor and dysarthria. *CMAJ* 2016;**188**:E396.