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Ectopic Geographic Tongue - A Case Report

Abstract: This report describes a case of 'ectopic' geographic tongue where lesions, clinically and histologically similar to those normally confined to the tongue, presented on the floor of the mouth and cheek mucosa. The patient, a type II diabetic, had a history of thrombocytopaenia and, more recently, autoimmune haemolytic anaemia.

Clinical Relevance: Geographic tongue is a common oral medicine condition and the purpose of this paper is to highlight the fact that it can present ectopically on the oral mucosa.

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Case Report

This 56-year-old Caucasian lady was referred by her dental practitioner in 2004 for investigation and treatment of an 'ulcerated' mouth and metallic taste. The patient related the start of her sore mouth to the onset of idiopathic thrombocytopenia purpura (ITP) in 1992, 12 years previously, and its treatment with steroids. Her medical history included type II diabetes, hypertension, obesity, ITP, autoimmune haemolytic anaemia and polyarthralgia. The patient had stopped smoking 25 years previously.

In 1993, a year after the diagnosis of ITP, she had been referred with a sore tongue. The typical lesions of geographic tongue were identified; she was informed of the diagnosis and reassured, but thereafter failed to attend further review appointments.

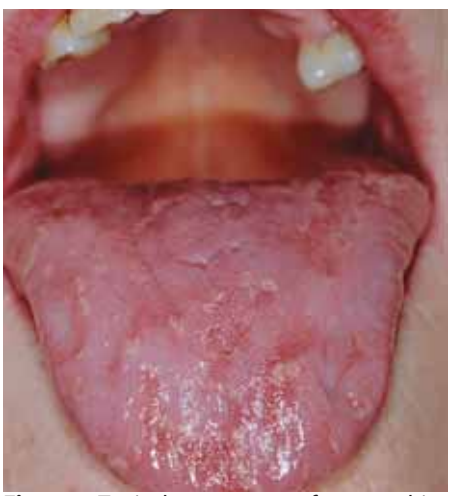

Figure 1. Typical appearance of geographic tongue.

Intra-oral examination at the time of the re-presentation in 2004 revealed no obvious oral ulceration, but numerous erythematous lesions, surrounded by a narrow white margin, on both buccal mucosae and dorsal and ventral surfaces of the tongue (Figures 1, 2 and 3). In addition, there was marked fissuring of the dorsal surface of the tongue. Oral lichen planus, oral lichenoid reaction, benign migratory glossitis and acute atrophic (erythematous) candidiasis were considered as differential diagnoses.

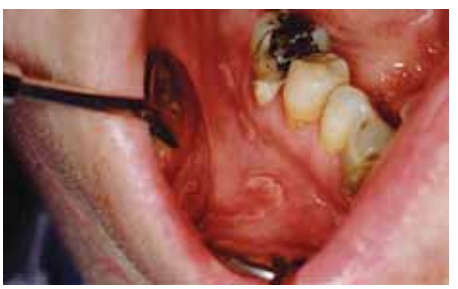

Figure 2. Lesion presenting in right mandibular buccal sulcus.

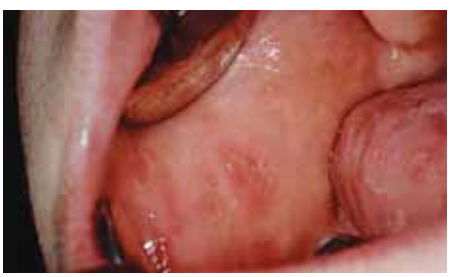

Figure 3. Lesion presenting on right buccal mucosa.

Blood was taken to assess full blood count, serum vitamin B_{12}, serum ferritin, red cell folate, and serum zinc

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- Psoriasis – guttate, pustular
- Fissured tongue
- Atopy – hayfever, eczema, asthma
- Stress
- Reiter's syndrome
- HLA – Cw6

Table 1. Conditions which have been linked with geographic tongue.

levels; the results were within normal range. Candida species were isolated from the oral mucosa. Antifungal therapy, fluconazole 50 mg daily, was instituted for 3 weeks, but the lesions remained, as did the patient's symptoms.

An incisional biopsy of a lesion from the buccal mucosa was reported as

...psoriasiform hyperplasia with oedema of the corium, scattered intraepithelial pustules and heavy acute inflammatory exudates ....if on the tongue (the histological features) would be typical of geographic tongue. There is no evidence of lichen planus or suggestion of trauma.

Discussion

Geographic tongue has a reported incidence of 2% and is, therefore, commonly found both in adults and children. There is a slight male predominance of 5:4.[1] The 'ectopic variant', ie affecting other locations within the mouth, is less frequently encountered and was first described by Cooke[2] in 1955 as 'erythema migrans'.

The classic clinical presentation of geographic tongue is that of a variable distribution of red patches caused by filiform papilla depapillation on the dorsal and lateral aspects of the tongue. These red patches are often surrounded by a thin white/yellow border, the pattern of which can change from day-to-day, or even within a matter of hours.[3] Most lesions are asymptomatic, although a patient may express concern about the appearance of raw areas on his/her tongue or complain of a sore or burning tongue, particularly after hot or spicy foods. Symptomatic patients may benefit from replacement of iron or zinc, if these elements are deficient, and avoidance of spicy or irritant foods.

In the past, there have been reports of associations between geographic tongue and tongue fissuring and, also, between geographic tongue and psoriasis. The link between lingual fissures and lingual erythema migrans is now disputed on the grounds that both conditions are common within the general population.[4] Psoriasis, another common disease, has variants, particularly guttate and pustular psoriasis, which share histological features similar to those of erythema migrans,[5] and this has led to a linking of these conditions. Recent research has also shown that both are associated with human leucocyte antigen HLA Cw6.[6] Table 1 highlights associations of geographic tongue with other conditions.

Conclusion

Geographic tongue is a common and well recognized condition. A case of ectopic geographic tongue with histological confirmation is presented. The intention of this report is to make dental practitioners aware that erythema migrans is not necessarily confined to the tongue but can, on occasion, affect oral mucosa elsewhere in the mouth. Once the diagnosis is established the patient can be reassured.

Acknowledgement

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Abstract

MAXIMIZE YOUR BOND STRENGTHS?
Immediate dentine sealing improves bond strength of indirect restorations. P Magne, TH Kim, D Cascione and TE Donovan. *Journal of Prosthetic Dentistry* 2005; **94**: 511–519.

When an indirect dentine bonded restoration is prescribed, the normal protocol would be to etch, rinse and seal the dentine immediately prior to cementing the restoration. The authors of this interesting paper compared the bond strengths achieved by this conventional protocol with those achieved if the dentine is etched, washed and sealed immediately following the preparation.

A three-step etch and rinse dentine-bonding system, *OptiBond FL*, was used. The results showed that the microtensile bond strengths were significantly increased with the immediate sealing protocol, compared with the conventional delayed sealing, and was comparable to the control group that had a restoration bonded immediately following tooth preparation.

Interestingly, this technique would also ensure that the freshly cut dentine tubules were protected whilst the impression was taken and the provisional crown constructed, a process that has previously been shown to be associated with pulpal problems. Immediate dentine sealing would also eliminate any concerns regarding the film thickness of the dentine sealant.

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