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REVIEW ARTICLE

Oral manifestations of thrombocytopaenia

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Abstract The appearance in the mouth of haemorrhagic petechiae, ecchymoses or blood blisters with spontaneous bleeding is suggestive of a haemorrhagic disorder that may be caused either by functional impairment of platelets or of blood vessel walls, by an abnormal decrease in the number of circulating platelets (thrombocytopaenia), or by defects in the blood clotting mechanism. Thrombocytopaenia from decreased production or increased destruction of platelets may be caused by multiple factors including immune mediated mechanisms, drugs or infections.

A diagnosis of thrombocytopaenic purpura can be made when any other disease entity that might be causing the purpura is excluded on the basis of the medical history, the physical examination, a complete blood count and a peripheral blood smear.

In this paper, we outline the clinical features of oral thrombocytopaenic purpura and briefly discuss some aspects of its aetiopathogenesis and treatment.

Contents

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1. Introduction

Thrombocytopaenic purpura is a haemorrhagic disorder characterized by an abnormal reduction in the number of circulating platelets with the extravasation of blood from small blood vessels, affecting particularly the mucous membranes of the aerodigestive and the genitourinary tracks, and the skin (Rajendran and Nooh, 2012; Parke et al., 2013, McCarthy and Shklar, 1964; Aster, 2005; Rodeghiero et al., 2013). Melaena, haematuria, epistaxis, gingival bleeding or excessive menstrual flow may be the first signs of the disease (Aster, 2005); intracranial bleeding caused by thrombocytopaenia is a life-threatening condition (Aster, 2005).

According to the severity, oral thrombocytopaenic purpura manifests as small single or multiple petechial haemorrhages, as ecchymosis, as haemorrhagic blisters or as spontaneous bleeding (Figs. 1–4) (McCarthy and Shklar, 1964). In the mouth, the thrombocytopaenic lesions are usually on the soft tissues most susceptible to trauma, such as the buccal mucosa from cheek biting, the junction between the hard and soft palate in denture wearing subjects or the gingiva (Regezi and Sciubba, 1989). The extravasated blood is gradually resorbed over a period of a few days, but in larger lesions resolution will take longer, and in the case of haemorrhagic blisters the overlying epithelium may slough and the resulting erosion may become secondarily infected (McCarthy and Shklar, 1964).

Oral haemorrhagic purpura can be brought about not only by diminution in the number of circulating platelets but also by impairment of their functional activity, by defects in blood clotting or by abnormalities of blood vessel walls. Exclusion of

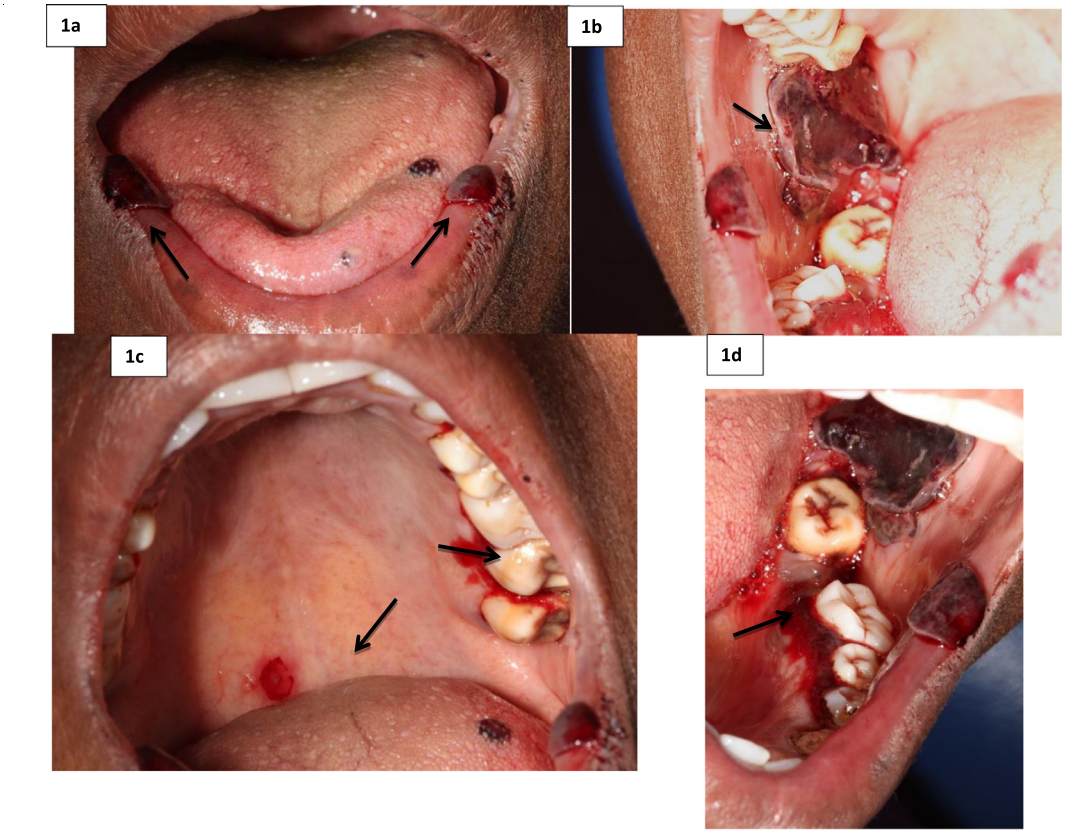

Fig. 1 A 42-year-old female attended for multiple haemorrhagic bullae affecting her lower labial mucosa and dorsum of the tongue (a); right buccal mucosa (b) and palate (c). There was spontaneous bleeding of the lower lingual gingiva (d) and upper palatal gingiva. A full blood count was normal excepting for her platelet count: 4000/mm^3 (normal range: 150,000–400,000) and MCHC was marginally low: 29.9 g/dl (normal range: 31.5–34.5). She reported that two days previously she had had continuous bleeding from the mouth and she then noticed the oral lesions. She was treated in the Department of Haematology but the details of the treatment are not available: the spontaneous bleeding resolved and 48 h later the oral lesions were in the process of healing. The cause of her thrombocytopaenia remains unknown.