Clinics in Surgery

Case Report
Published: 02 Apr, 2021

Sudden Blood-Filled Bulla in Oral Cavity: Case Report

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Abstract

Purpura is a common and non-specific clinical term, which may involve different underlying disorders. Among all, immune thrombocytopenic purpura, also called Idiopathic Thrombocytopenic Purpura (ITP), is defined as isolated low platelet count without any other underlying causes of thrombocytopenia. ITP is an autoimmune disease with antibodies detectable against platelet surface antigens. The diagnosis of ITP needs to exclude blood abnormalities other than a low platelet count, and no physical signs other than bleeding. Co-existing causes including leukemia, medications (e.g., quinine, heparin), cirrhosis, HIV, hepatitis C also needed to be ruled out. The severity of ITP can be lethal and therefore it is worthwhile for all dentists to understand such diagnosis. Here we reported a case of ITP to demonstrate the urgency of the case. A 43 y/o female that came in to our oral pathology & diagnosis clinic on June 2016 showing blood-filled bulla in the mouth that developed overnight. At examination, blood-filled bullae noted on the tongue, buccal mucosa and lips. Petechia also noted on the skin. Complete blood count showed extremely lower platelet count (1000/ul). ITP was strongly suspected. Patient was immediately referred to emergency department for treatment. After 5 months of treatments including platelet transfusion, prednisolone, revolade, dapsone, platelet count returned to normal level.

Keywords: Idiopathic thrombocytopenic purpura; Bulla; Petechia

Introduction

Purpura is a common and non-specific clinical term, representing red or purple spots on the skin or mucosa. They measure 3 mm to 10 mm in diameter, while petechia measures less than 3 mm and ecchymosis greater than 1 cm. Different etiologies may be responsible for purpura, including platelet disorders such as immune thrombocytopenic purpura, also called Idiopathic Thrombocytopenic Purpura (ITP).

ITP is defined as low platelet count without any other underlying causes of thrombocytopenia. It is considered an autoimmune disease with antibodies detectable against platelet surface antigens. The prevalence of ITP is estimated to range from 5.6 to 20 per 100,000 population and increases with advancing age [1,2]. National Cancer Institute recommended a grading system for cancer patients receiving chemotherapy to describe the severity of thrombocytopenia. When the platelet counts were between 75,000/μl to 150,000/μl, the severity was defined as grade 1, 50,000/μl to 75,000/μl as grade 2, 25,000/μl to 50,000/μl as grade 3, and below 25,000/μl as grade 4 [3]. In view of the need to define the terminology and outcome criteria for ITP, a workshop was held in 2007. Phases of the ITP were recommended as newly diagnosed, persistent, chronic and severe [4]. Disease severity was defined as mild, moderate and severe which was correlated to the risk of bleeding [4]. The diagnosis of ITP needs to exclude blood abnormalities other than a low platelet count, and no physical signs other than bleeding [3]. Co-existing causes including leukemia, medications (e.g., quinine, heparin), cirrhosis, HIV, hepatitis C also needed to be ruled out [5]. ITP can be lethal and therefore it is worthwhile for all dentists to understand such diagnosis. Here we reported a case presenting with sudden development of blood-filled vesicles/bulla in the oral cavity as well as petechia on the skin to remind professional oral health providers the importance of diagnosis for immediate and correct treatment.

Case Presentation

A 43-year-old female who came in to Chung Shan Medical University Hospital, Department of Stomatology clinic with a chief complaint of spontaneous bleeding in the mouth overnight. At examination, many blood-filled bulla and vesicles noted on buccal mucosa (Figure 1A), dorsal tongue surface and gingiva. In addition, spontaneous bleeding was seen from gingiva of 11/21 interdental

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Received Date: *18 Feb 2021*
Accepted Date: *30 Mar 2021*
Published Date: *02 Apr 2021*

Citation:
Yang H-W, Huang Y-F. Sudden Blood-Filled Bulla in Oral Cavity: Case Report. Clin Surg. 2021; 6: 3114.

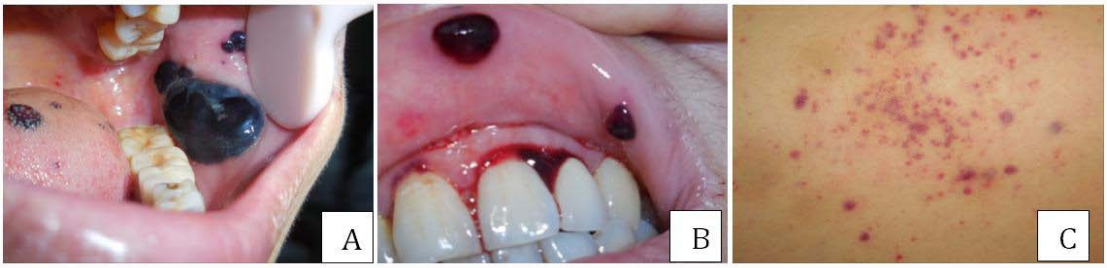

Figure 1: A. Blood-filled vesicles/bullae in oral cavity. B. Spontaneous b C. Petechiae on right thigh.

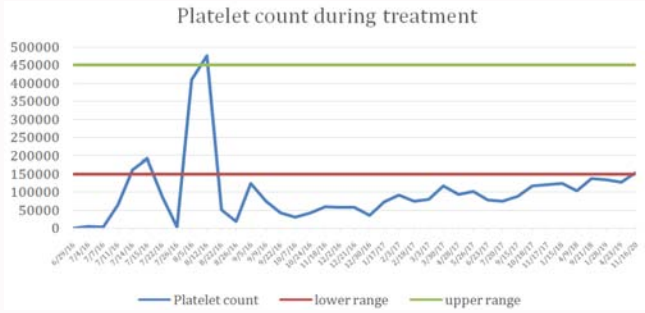

Figure 2: Platelet count during treatment course.

papilla (Figure 1B). Also detected were several skin petechia on right thigh (Figure 1C) and a vesicle at right inguinal region. Patient admitted that she was diagnosed with thrombocytopenia 1 year ago, but not severe enough for treatment. A history of papillary microcarcinoma of left thyroid was also discovered which was treated with left lobectomy. She terminated all medications after a few months and started taking herbal medicines, including Pueraria decoction, Chiu Wei Chiang Huo Tang Extract Powder, Lonicerae and Forsythiae powder and Scutellaria.

A series of blood examination was ordered, including CBC, DC, bleeding time and PT. When coming back from the blood test 30 minutes later, more blood-filled vesicles/bullae were seen on dorsal tongue surface. In the meantime, the blood test results showed extremely low platelet count (~1000/μl) (normal range: ~150K to 450K/μl). Patient was immediately referred to hematology department for emergency care and started treatments including platelet transfusion, prednisolone, revolade, dapsone. After almost 3 years treatment and follow up, platelet count gradually returned to normal (Figure 2). Patient is still being followed up.

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