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Acute Case of Idiopathic Thrombocytopenic Purpura with Oral Haemorrhage- A Case Report

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Abstract

Idiopathic thrombocytopenic purpura (ITP) is a hemorrhagic disease that often occurs in the elderly.The current report describes a 34-year-old patient with acute ITP who complained of spontaneous appearance of a large reddish haemorrhagic lesion on palate, multiple haemorrhages on other areas of the oral cavity. Extraoral examination revealed no abnormal findings. Ultrasonogram scan showed moderate hepatomegaly. A complete hemogram revealed severe thrombocytopenia, with a platelet count as low as 10,000/μL. Bleeding time, prothrombin time, and partial thromboplastin time were within the normal range. Peripheral blood smear revealed mild neutropenia with lymphocytosis.A bone marrow examination revealed increased numbers of megakaryocytes without morphologic abnormality. Based on these findings, a final diagnosis of ITP was made.

Keywords: adult idiopathic thrombocytopenic purpura, spontaneous haemorrhage, platelets, echhymosis.

Introduction

Immune thrombocytopenic purpura (ITP) is also known as idiopathic thrombocytopenic purpura, is an acquired hemorrhagic condition characterized by isolated thrombocytopenia without a clinically apparent cause.[1] Here, Immune refers to the immune system's involvement, Thrombocytopenia refers to decrease in blood platelet, and purpura refers to purplish- looking areas of the skin and mucous membrane. [2] It is

characterized by an immune-mediated platelet destruction by the reticuloendothelial system caused by autoantibodies against platelet surface antigens i.e. glycoprotein (GP) IIb/IIIa. [3,4]The characteristic clinical indicators of ITP include easy bruising of the skin and mucocutaneous lesions.[5]Oral manifestations include spontaneous gingival bleeding, petechiae, ecchymosis, and haematoma. Therefore, dentists must be aware of the clinical appearance of ITP to recognize the condition and successfully manage their patients. We report a case of an adult patient who presented with multiple intraoral hemorrhagic lesions as an early sign of newly diagnosed ITP.

Case report

A 34-year-old male was referred to the Department of Public Health Dentistry at SCB Dental Hospital, Cuttack with a chief complaint of spontaneous appearance of a large reddish haemorrhagic lesion on palate.

There was no history of any bleeding problem, and his medical and family histories were noncontributory. He was moderately nourished. His vital signs were normal. On examination, intraorally, a large ecchymotic lesion with overlying superficial necrosis was present on left posterior palate extending to pharyngeal region (Figure 1). Multiple hemorrhagic lesions were present bilaterally on the buccal mucosa, gingiva, floor of mouth, tongue along with hemorrhagic crusting on lip vermillion (Figure 2).

Extraoral examination revealed no abnormal findings. However, ultrasonogram scan showed moderate hepatomegaly. A complete hemogram revealed severe thrombocytopenia, with a platelet count as low as 10,000/μL. Bleeding time, prothrombin time, and partial thromboplastin time were within the normal range. Peripheral blood smear revealed mild neutropenia with lymphocytosis.

A bone marrow examination revealed increased numbers of megakaryocytes without morphologic abnormality (Figure 3). Based on these findings, a final diagnosis of ITP was made.

Following the definitive diagnosis, patient was administered an intensive oral corticosteroid regimen, methyl prednisone 40 mg for one week which was tapered to 20 mg for the next one week .Subsequently a CBC after 2 weeks indicated an improved platelet count of 27000/uL. Patient was then switched to prednisone 10 mg for one week, following which azathioprine 50 mg was prescribed. After 1 month platelet count increased to 154000/uL.

Discussion

ITP is an autoimmune disorder characterized by immunologic destruction of normal platelets, commonly occurring in response to an unknown stimulus.[6]

Primary type has peripheral blood platelet count 100×10^9/L in the absence of other causes as classified by an International working group of experts in 2009.[7]

Secondary ITP can be caused due to autoimmune diseases (particularly the antiphospholipid antibody syndrome), viral infections (including hepatitis C [HCV] and human immunodeficiency virus [HIV]), and certain drugs.[8]

Based on duration the phases of ITP can also described as newly diagnosed ITP (lasting within 3 months from diagnosis), persistent ITP (lasting between 3 and 12 months from diagnosis), and chronic ITP(lasting for more than 12 months), excluding the term “acute”. The incidence of ITP in the world is 9.5 new cases per lakh per year, with women being more commonly affected than men in 30-60 years of age group.[8]The main clinical presentation of primary ITP is an increased risk of bleeding, but such symptom may not always be discerned.

The American Society of Hematology, recommends that the diagnosis of ITP should be principally based on

history, physical examination, complete blood count, and peripheral smear examination. The symptoms and signs of ITP are highly variable and range from the fairly common presentation of an asymptomatic patient with mild bruising and mucosal bleeding (e.g., oral or gastrointestinal tract bleeding) to frank bleeding from any site. Overall, symptomatic bleeding is uncommon unless the ITP is severe (platelet count <30,000/μL). Although there is a poor correlation between degree of thrombocytopenia and bleeding, severe cutaneous bleeding, prolonged epistaxis, gingival bleeding, overt hematuria, or menorrhagia may develop at platelet counts less than 10,000/μL. According to one large study in which 6845 adult ITP patients were evaluated, the most common symptom was purpura (62.8%), followed by gingival bleeding (19.9%), epistaxis (10.0%) and hematuria (6.6%). In case of oral cavity ,most frequent sites are those exposed to trauma such as buccal mucosa and junction of hard and soft palate in denture wearers. However in the present case only an isolated lesion on palate was found in a dentulous patient. The case is also unusual since despite such drastically low platelet levels (<10000), neither any cutaneous manifestations, nor any other common oral symptoms such as gingival bleeding could be discerned. In general, immediate therapy is not required for patients with platelet counts between 20,000 and 50,000/μL in the absence of bleeding or predisposing comorbid conditions such as hypertension, anticoagulation, or recent surgery[1]. In patients with severe ITP, platelet count must be immediately increased above 30,000/μL to prevent lethal bleeding symptoms because thrombocytopenia in a patient with a platelet count less than 30,000/μL is associated with a 4.2-fold increased mortality risk compared with a platelet count more than 30,000/μL. Therefore, in severe cases, rapid Increase of platelet count is crucial. First-line therapy consists of corticosteroids, IV Ig, and anti-D antibodies. High-dose IV Ig therapy can quickly improve symptoms and thus represents an appropriate first-line therapy in emergencies.[9] Very few cases of ITP have been reported in the oral medical literature because diagnosing hematologic disease merely through the symptom of oral bleeding may be difficult. A literature search of PubMed using the keywords “idiopathic (or immune) thrombocytopenic purpura”, “bleeding”, “oral”, and “case report” from 1980 to 2019 revealed 26 articles that included 12 cases of ITP detected with oral hemorrhage as the first symptom in the English literature. In the present case, we suspected a hematologic disease based on the patient’s unusual oral bleeding symptoms. Simple laboratory testing revealed severe thrombocytopenia; therefore, the patient was promptly referred to hematologists for further evaluation. He was immediately hospitalized and diagnosed as having ITP following additional examinations. Although his disease was refractory to conventional treatments, the patient was successfully managed with corticosteroids following which there was no fatal haemorrhage event. Dentists should be familiar with the clinical appearance of ITP, and attention must be paid to detect previously unidentified cases.[7]When uncommon gingival bleeding, hemorrhagic bullae and hematomas in the oral cavity are observed, dentists should order appropriate haematological tests to rule out or recognize hemorrhagic disease.

Conclusion

Major signs of ITP such as spontaneous gingival haemorrhage, petechaie invarious sites of the oral cavity and hematomas on the various body parts should lead to a suspicion of altered coagulation or bleeding disorder. As dental practitioners we should be aware of haematologic disorders and their consequences so that early recognition

and referral of these patients for precise diagnosis and treatment can be made to prevent the complications.

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Legend Figure

Figure 1: Intraoral appearance of a large reddish haemorrhagic lesion on palate, multiple haemorrhages on other areas of the oral cavity.

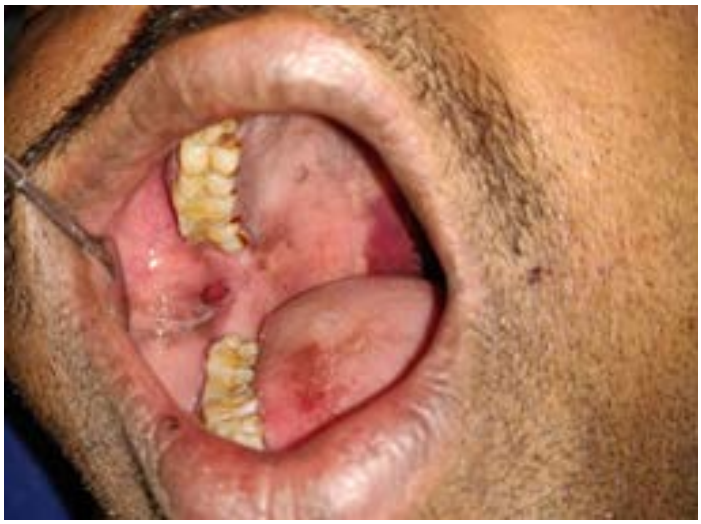

Figure 2: Intraoral appearance of reddish multiple haemorrhages on buccal mucosa, tongue and other areas of the oral cavity.

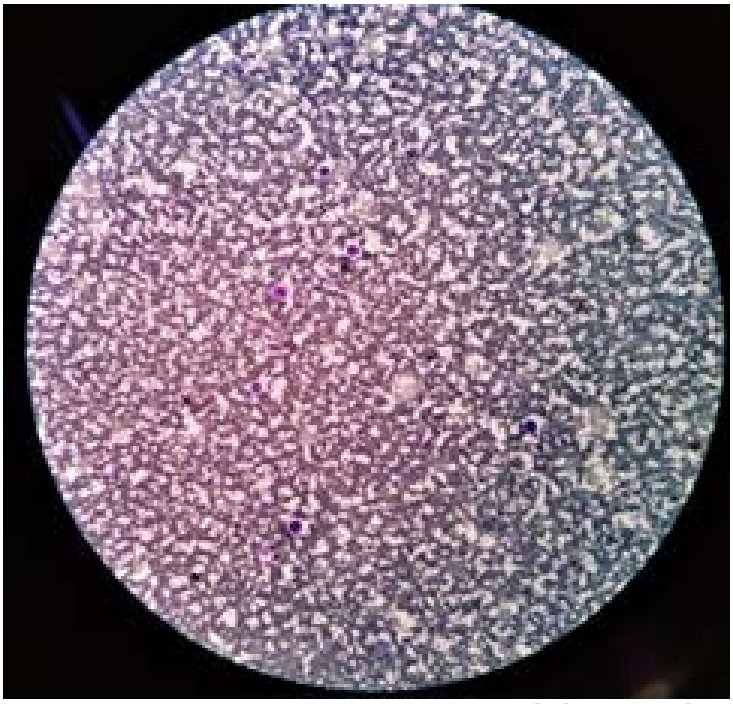

Figure 3: Bone marrow examination revealed increased numbers of megakaryocytes without morphologic abnormality