

Oral Manifestations of Idiopathic Thrombocytopenic Purpura : A Rare Case Report



Medical Science

KEYWORDS : Thrombocytopenia; Idiopathic thrombocytopenic purpura; ITP; Platelets; Petechiae;Purpura; Hematology.

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ABSTRACT

Idiopathic thrombocytopenic purpura (ITP) is defined as isolated low platelet count with normal bone marrow and the absence of other causes of thrombocytopenia. It is also known as primary immune thrombocytopenia primary immune thrombocytopenic purpura and autoimmune thrombocytopenic purpura. The major causes of ITP consist of immune thrombocytopenia, decreased bone marrow production and increased splenic sequestration. The laboratory investigation necessary at the initial visit to made diagnosis were erythrocyte count, leukocyte count, anti-glycoprotein (GP) IIb/IIIa antibodies, reticulated platelets, plasma thrombopoietin level. This article present a case report pointing oral manifestation ITP, importance of identifying oral signs of ITP. The concise explanations of points to be consider in the diagnosis and management of ITP also mentioned.

INTRODUCTION

Platelets are derived from megakaryocytes. They circulate in the blood for 7 to 10 days and play a important role in hemostasis. Thrombocytopenia is defined as a platelet count below 50,000 microL. In most laboratories, a normal platelet count is between 150,000 to 450,000 microL¹.

There are two most common types of platelet disorders Idiopathic thrombocytopenic purpura and thrombotic thrombocytopenic purpura. The classic studies of Harrington and coworkers provided the first evidence for the existence of a serum anti-platelet factor in ITP patients in 1951. There are two variable of ITP seen Acute and Chronic. Acute usally seen in children and it is self limiting in 2-6 weeks.chronic form seen in adults and have persistent course.

ITP is an acquired hemorrhagic condition in which there is accelerated platelet consumption caused by anti platelet autoantibodies. It is supposed that platelet antibodies opsonizes the platelet membrane resulting in reduced platelet survival by the reticuloendothelial system².

Platelet membrane glycoproteins (GPs), including GPIIb/IIIa and GPIb/IX are supposed to be targets recognized by anti-platelet autoantibodies³.

CASE REPORT

A 30 years old patient reported with chief complaint of bleeding gums since last 15 days. He also complained of intra-oral swelling in mandibular anterior region on the labial aspect. The swelling was of gradual onset and increasing in size for the last one month.The swelling interfered with chewing activity of the patient. Patient admitted to having one episode of hematuria and epistaxis which were self-limited. The bleeding of gingiva has become more pronounced since last 15 days. There was no history of maleana and joint pain. Joints were non-tender, non-erythematous and range of movement was normal.

Figure 1 shows shows an intraoral sessile swelling seen on right side labial gingiva of approximately size 2-3 cm. The colour of swelling is reddish with well defined borders. The consistency of swelling is firm.swelling not fluctuant.



Figure 2 shows Petechiae/ purpura seen on lips. Ecchymosis seen on the left side hard palate.



Figure 3 shows Petechiae/ purpura seen on lips and hematoma on right side buccal mucosa.



Laboratory investigation shows HCT: 32%, WBC: 7.3 x 10³ per microL, MCV: 84.2 fL, MCH: 28.9 pg, MCHC: 34.3gm/dl, Platelets: 12,000 per microL. Bone marrow aspiration result also not significant. Due to insignificant result of all tests diagnosis of Idiopathic thrombocytopenic purpura was made. The diagnosis of ITP is a process of exclusion.The mandibular anterior labial swelling was diagnosed as pyogenic granuloma. The patient was admitted to the intensive care unit for monitoring. Prednisone 80 mg orally daily and intravenous immunoglobulin 30 grams daily for five days were started. Steroids tapered when platelets count increased significantly.

DISCUSSION

General Clinical manifestations of ITP

There are two variable of ITP Acute and Chronic. Acute usally

seen in children and it is self limiting in 2-6 weeks.chronic form seen in adults and have persistent course. There is great variation in clinical manifestation of ITP. Petechiae, easy bruising, hematoma and purpura are common mucocutaneous lesions seen in ITP. Hematuria, GI bleeding and intracranial hemorrhage are rarely seen in ITP. But intracranial hemorrhage is most common cause of death.

Oral manifestation of ITP

In advance severe stages ITP shows oral hematomas and hemorrhagic bullae^{4,5}. Gingival bleeding, either spontaneous or in response to minor trauma (i.e. tooth brushing, flossing), is often the first sign of thrombocytopenia. The oral mucosa, most notably the soft palate and buccal mucosa, may demonstrate petechiae and ecchymoses.

DIAGNOSIS

The diagnosis of ITP is usually made with the help of case history, physical examination, complete blood count and examination of the peripheral blood smear do not show any other cause for the patient's thrombocytopenia. The antiplatelet antibody studies are new diagnostic modality for ITP. The laboratory investigation necessary at the initial visit to made diagnosis were erythrocyte count, leukocyte count, anti-glycoprotein (GP) IIb/IIIa antibodies, reticulated platelets, plasma thrombopoietin level.

TREATMENT

The treatment of ITP should correlate with presentation of disease. If the patient is having very low platelet counts (10,000 to 20,000/microL) leading to profound bleeding the early treatment of choice is with IV-Immunoglobulin (IV-Ig) or combined with IV methylprednisolone. In non-emergency situations, prednisone (1 - 2 mg/kg/day can be initial treatment), if intolerant to corticosteroids, intravenous IV Ig anti-D can be used⁶.

The newer therapies with diverse mechanisms of action, such as rituximab, anti-D, and thrombopoietin (TPO)-like agents can be carried out in treatment of ITP⁷.

CONCLUSION

Dentist in general and Oral dignocian in specific should always look for the oral signs of systemic disease. Identifying these oral signs help in early diagnosis and treatment of systemic disorder. The present case of Idiopathic thrombocytopenic purpura diagnosed by looking at oral signs.

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