CHRONIC IDIOPATHIC THROMBOCYTOPENIC PURPURA: A RARE CASE REPORT

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ABSTRACT

Idiopathic thrombocytopenic purpura is an acquired autoimmune disorder where auto-antibodies are made against platelets which leads increase in platelet destruction so it is called as autoimmune thrombocytopenic purpura. The main cause of ITP consist of immune thrombocytopenia which lead to decreased bone marrow production further causing increased splenic sequestration. Patient complains of bleeding from oral cavity. Haemorrhagic bulla in the oral cavity indicates existence of severe thrombocytopenia. Petechiae, purpura are noted on buccal muosa, tongue, palate, floor of mouth. This article presents a case report pointing the oral manifestation and importance of identifying oral signs of ITP. The concise explanations of points to be considered in the diagnosis and management of ITP also mentioned.

INTRODUCTION

Platelets are derivative of megakaryocytes. They have important role in hemostasis.[1] Thrombocytopenia is defined as when the platelet count is below 50,000 micoL.[2] There are two most common types of platelet disorders, of which first is Idiopathic thrombocytopenic purpura and second is thrombotic thrombocytopenic purpura. There are two variable of ITP which includes Acute which is usually seen in children and it is self limiting in 2-6 weeks and chronic form is 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.[3] Platelet membrane glycoproteins including GPIIb/IIIa and GPIb/IX are invented to be targets known by antiplatelet autoantibodies.[4] The clinical presentation of ITP can be asymptomatic, it can present as small petechiae and mild skin and mucus bleeding or it can present as intense and serious blood loss to the point of threatening life. ITP can occur
at any age, but it is more common in children and adolescent’s. It shows an increased prevalence in females. As stated above, its cause is unknown, although there is evidence of genetic predisposition. The patient’s clinical history is fundamental for the diagnosis of ITP and an inquiry for data related to the beginning of the signs and symptoms, development, duration period, previous episodes of bleeding (in the patient or family), medication intake, drug addiction and the presence of other symptoms and signs, like fever, anemia and adenopathy, should be performed. The type of bleeding is important data that should be considered. Types of bleeding include cutaneous (petechiae, bruises or hematomas), digestive (melena), urine (hematuria), genital (metrorrhagia) or the gravest bleeding of the central nervous system, with presentation of convulsions, which could develop into loss of consciousness and coma. An important symptom is the presence of petechiae, which can indicate capillary bleeding; this is a main injury in the initial or primary phase of hemostasis, and it is common in thrombocytopenia. However, petechiae are not only constituted in the manifestation of cutaneous bleeding. They can appear in mucous bruising, hematomas or bleeding (nose, gums, gastrointestinal and genitourinary). Beyond hemorrhagic signs, other signs and symptoms can be present: fever, lymph nodes, hepatosplenomegaly, joint pain, erythematous skin lesions and others that can identify some base pathology, as in the cases of secondary thrombocytopenic purpura. Treatment of ITP is the responsibility of a hematologist. Two courses of treatment are necessary when dealing with an ITP patient. The first is the treatment of the disorder itself with diverse techniques, including: hospitalization, platelet transfusion, corticosteroids and diverse other drugs. Additionally, a splenectomy is necessary in thrombocytopenic cases that do not respond to clinical therapy in the first six months of treatment (general platelet count is below 10,000/mm3).

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 ITP.

**CASE REPORT**

A middle aged female reported to the Dept. of Oral Medicine and Radiology with a complaint of bleeding from her oral cavity since 3-4 days. Physical examination revealed a well-nourished, well-developed, co-operative woman in no acute distress. Her vital signs were normal. On extra oral examination multiple small reddish brown haemorrhagic macules of approximately 1-2 cm in diameter seen on face, back, arms and both legs [figure 1, 2, 3,4]. Intraoral examination revealed multiple reddish haemorrhagic patch of approximately
1x0.5cm and second of 3x1 cm in size was seen on lower labial mucosa [figure 5] and also whole right buccal mucosa till the buccal vestibule and 1 reddish haemorrhagic papule was seen on left buccal mucosa. [Figure 6,7]. Floor of the mouth, tongue and both soft and hard palate was also involved [figure 8, 9]. The tongue showed a purpuric macule of 2cm on right lateral border of tongue few haemorrhagic macules were also noted on tongue [figure 10]. In the differential diagnosis acute leukemia and idiopathic thrombocytopenic purpura (ITP) were considered in light of the petechial and ecchymotic lesions, suggesting a hemorrhagic diathesis.

Laboratory results revealed that however, was drastically low at 300000 cu mm (reference range, 1, 50000– 4, 50000 cu mm). Hence on the basis of all investigatory findings patient was diagnosed with ITP and then hospitalised. In treatment she received 1 U of platelets, intravenous immunoglobulin G, and prednisone starting at 80 mg/d. Patient was followed up after 2 weeks her platelet count was raised to upto 800000 mm$^3$. There was reduction in size of the lesion on buccal mucosa, floor of the mouth and palate [figure 11, 12, 13, 14].

**Figures & captions**

Figure 1: Reddish brown haemorrhagic macule on arms, legs.
Figure 2: Red haemorrhagic spots on face.
Figure 3: Multiple, reddish brown macules seen on back.
Figure 4: Multiple, reddish brown macules seen on back.
Figure 5: Single, reddish haemorrhagic patch on lower labial mucosa.
Figure 6: Single, round, red papule on right buccal mucosa.
Figure 7: Single, round, red papule on left buccal mucosa.
Figure 8: Reddish haemorrhagic papule on floor of the mouth.
Figure 9: Reddish haemorrhagic patch on palate.
Figure 10: Reddish haemorrhagic papule on tongue.
Figure 11: Post treatment reduction in size of lesion on palate.
Figure 12: Post treatment reduction in size of lesion of floor of the mouth.
Figure 13: Post treatment reduction in size of lesion of left buccal mucosa.
Figure 14: Post treatment reduction in size of lesion of right buccal mucosa.
Patient pictures

Fig 1

Fig 2

Fig 3

Fig 4
**DISCUSSION**

ITP is diagnosed by the ruling out of other diseases allied with low platelet count. Diagnosis is best achieved by proper history, physical examination, complete blood count and peripheral smear examination.[9] About 30% to 40% of adults having ITP have no symptoms. Clinical manifestation of ITP shows great discrepancy. Regular mucocutaneous lesions seen in ITP are Petechiae, purpura, bruising and hematoma. Infrequent manifestations are hematuria, gastrointestinal bleeding and intracranial hemorrhage is most common cause of death.[6] Petechiae and ecchymoses tend to develop on skin. Purpura predictable to be form chiefly in areas of increased venous pressure such as extremities like leg, hands, back. Impulsive gingival bleeding occurs on decreased platelet count less than 20,000 cu mm.[8, 9] Peripheral smear shows reduced platelet count and is crucial to exclude thrombotic thrombocytopenic
purpura and acute leukemia. Early treatment of choice for the patient having very low platelet counts value like 10,000 to 20,000 cu mm leading to intense bleeding is with Intravenous Immunoglobulin alone or in combination with Intravenous methylprednisolone. Initial treatment includes prednisolone 1-2 mg/kg/day. For patients intolerant to corticosteroids, intravenous IV Ig anti-D can be given. The newer drugs include rituximab, anti-D and thrombopoietin (TPO).

REFERENCES