A Case Report

Oral Purpura Secondary To Thyrombocytopenia: A Case Report

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Abstract

Background : Mouth is the mirror of the body which reflects underlying systemic disease.The oral cavity has an important anatomical location with a role in many critical physiologic and pathological processes. Any system involved in the pathological process has all the possibilities to manifest in the oral cavity in many forms. Some are general features and some are more specific characteristic signs.

Aim: The aim of this case report isearly recognition of such lesions alarms the oral physician to further deepen the observation and appropriate investigations advised so that severe complications can be avoided.

Material and Methods: Idiopathic Thyrombocytopenia Purpura in 40 year old male patientwith significant past medical (Hypertension since 5yrs) presented with primary oral lesions involving in the oral cavity which upon thorough evaluation and investigations proved to be a serious underlying bleeding disorder.

Conclusion: Oral Physiciansmust have a basic insight into the oral findings ofbleeding disorders and should arrange and prepare the necessary assistance in advance.However, diligent cooperation among Patient, Hematologists ,and Oral Physicians is equally important.

INTRODUCTION

Idiopathic thrombocytopenic purpura (ITP) is a condition that results in thrombocytopenia, or low platelet counts, with no apparent cause (idiopathic). It's also known as immune thrombocytopenic purpura because the majority of causes seem to be connected to antibodies against platelets.A bleeding disorder and purpura can result from extremely low platelet counts, even though the majority of cases are asymptomatic. ITP is a condition that affects blood platelets rather than their function. [1] In adults, ITP is a type of autoimmune condition, which means that the body develops antibodies that damage some of its own products-in this case, blood platelets. Patient with acute ITP cases usually suffer from bruising; petechiae, nosebleeds and bleeding gums could happen if the platelet count is around 20,000 which is below the normal range of 150,000-400,000/mm^3.[2] ITP patients may, in rare circumstances, bleed into their lungs, brains, or other essential organs, which could result in subarachnoid, intracerebral, or other internal bleeding. however, these consequences are less likely to occur in those with platelet counts above 20,000.Approximately 60% of individuals have antibodies against platelets, suggesting that in many cases the pathophysiology is not idiopathic but rather autoimmune[3]. In clinical practise, dentists may come across patients who have ITP oral symptoms.Therefore, in order to diagnose the condition and effectively manage their patients, dentists must be aware of the clinical appearance of ITP. [4 - 5] The purpose of this case report is to present a case of Idiopathic Thyrombocytopenia Purpurapointing oral manifestation ITP, importance of identifying oral signs of ITP. The concise explainations of points to be consider in the diagnosis and management of ITP also mentioned.

CASE REPORT

A 40-year-old male patient reported to the department of oral medicine and radiology, Kothiwal Dental College and Research Center with the chief complaint of Profuse bleeding on the upper right back

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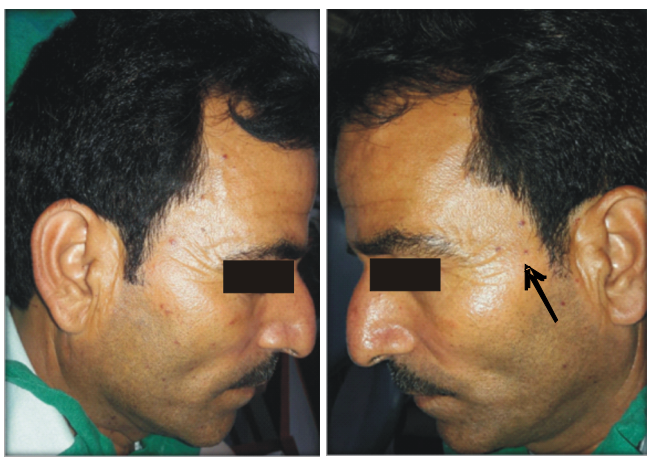
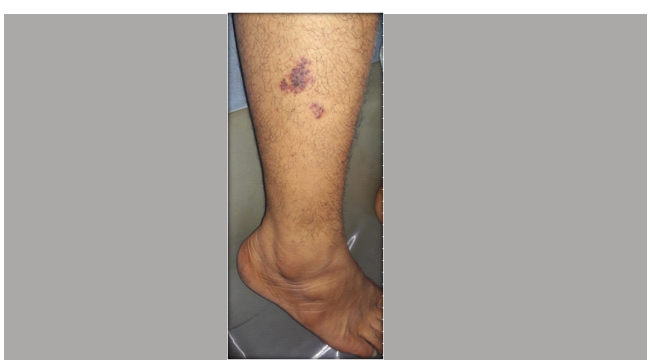
gum region since 10 days associated with Purple coloured rash on face, hands and legs past one month which was initially less in number but however in past one month it gradually increased in number for which the patient approached the local doctor who prescribed him some medication. However the purple coloured rash and bleeding was persistent and was a concern for the patient and reported to our department.

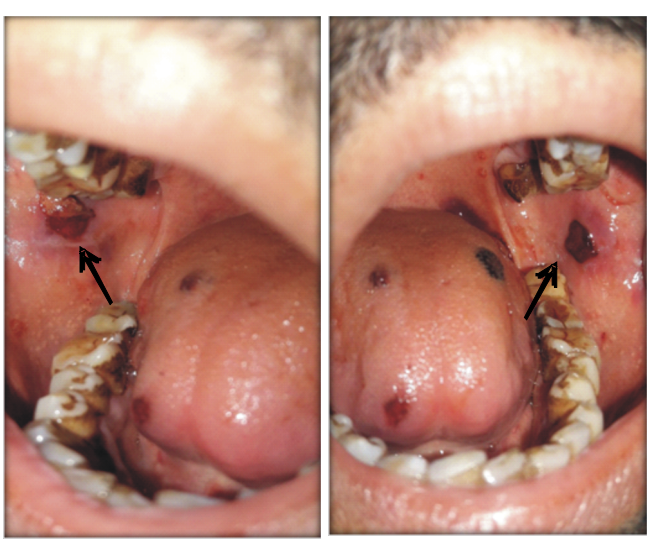


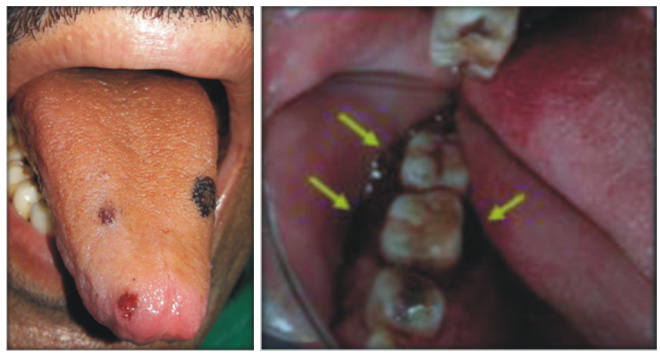
On extra oral examination

Small purple spots were seen on the face bilaterally on temporal region , which was multiple in number



Brushing purple patch over the skin on the lower leg





On intraoral examination

Reveled well defined raised purpuric spot on the both the buccal mucosa posteriorly approx. 8×8mm overlying with smooth and shiny mucosa surrounding by slight erythematous mucosa

Macule on the dorsum surface of tongue and gingival bleeding in the upper right back tooth region (16 and 17 region) Considering the history of the patient and based on clinical evaluation, a provisional diagnosis Oral Purpura Secondary To Thyrombocytopenia and Differential DiagnosisIdiopathic Thrombocytopenic Purpura (ITP) , Drug – Dependent Thrombocytopenia, Acute Leukemia , Trauma.

Patient was subjected to complete hemogram test where the report revealed significantly lower platelet count than the normal biological reference range whereas the other parameters were with in normal limits.

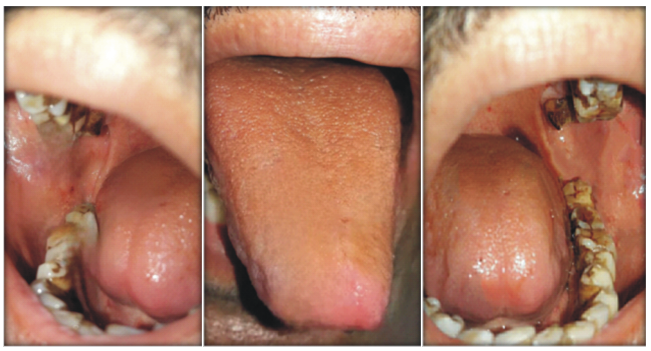
Complete Hemogram Test

Investigation	*Results*	*Biological References Range*
Haemoglobin	**12.1gm/dl**	**12-18 gm/dl**
Total leucocyte count	**9900/cu mm**	**4000-11000/cu mm**
Total R.B.C. Count	**4.5 mcL**	**4.7-6.1 mcL**
Platelet Count	**0.15 lacs/mm^3**	**1.50-4.50 lacs/mm^3**
Clotting Time	**7:45 Min./Sec.**	**4 – 9Min./Sec.**

The patient was immediately referred to the Department of Hematology at Safdarjung Hospital in New Delhi patient was subjected toPeripheral Blood Smear and Bone Marrow Test.

Peripheral Blood Smearno abnormalities in differential leukocyte count or erythrocytic morphology and Bone Marrow Test Increased numbers of megakaryocytes without morphologic abnormality.So, based on the Peripheral Blood Smear and Bone Marrow Test they made the final diagnosis Idiopathic Thrombocytopenic Purpura (ITP). The patient received I.V. methylprednisolone 30 mg/kg OD and 500 mg in 500 ml of normal saline HS for 3 days, with I.M. vitamin K 10

mg OD as an additional treatment for 4 days.Following 5 days new haematological test showed an increase in platelet count from 11,000 to 1.28 lakhs.From here on the patient speedily recovered without further problems.



This is the post treatment clinical photograph here we can see the complete disappeared of oral lesion.

DISCUSSION

Idiopathic Thrombocytopenic Purpura (ITP) is a rare haematologic disorder that is frequently identified by ruling out other diseases based on a patient's medical history, physical examination, complete blood count with peripheral smears, and coagulation studies.[6] ITP has been categorised according to age and duration (acute or chronic) (childhood or adult). In 2019, a working group of international experts excluded the term "acute" and defined the phases of ITP as newly diagnosed ITP (lasting for less than three months after diagnosis), persistent ITP (lasting between three and twelve months after diagnosis), and chronic ITP (lasting for more than twelve months).[7]. Childhood ITP typically manifests as an acute form in children ages 2 to 10, with a peak incidence between the ages of 2 and 4.Most frequently occurring after a viral infection or vaccination, the illness is typically self-limiting. Recovery is generally observed within six months. ITP, on the other hand, rarely spontaneously resolves in adults and typically has no conceivable precipitating factor. [8,9] The symptoms and signs of ITP are extremely variable and range from the fairly typical presentation of an asymptomatic patient with mild bruising and mucosal bleeding (such as oral or gastrointestinal tract bleeding) to frank bleeding from any site. The majority of the time, symptomatic bleeding is rare unless the ITP is severe (platelet count > 30,000/L). Although there is little correlation between the severity of thrombocytopenia and bleeding, menorrhagia, prolonged epistaxis, gingival bleeding, severe cutaneous bleeding, or overt hematuria may appear at platelet counts below 10,000/L.[10]Purpura (62.8%), gingival bleeding (19.9%), epistaxis (10.0%), hematuria (6.6%), and melena (3.8%) were the most prevalent symptoms, according to a large study in which 6845 adult ITP patients were evaluated. [11] .Cerebral vascular bleeding was noted in 45 (0.7%) adult patients. Petechiae, ecchymosis, or hematomas are other oral manifestations that can appear in easily injured areas like the buccal mucosa, the lateral borders of the tongue, or the border between the soft and hard palate.[12]For patients with platelet counts between 20,000 and 50,000/L, immediate therapy is typically not necessary if there is no bleeding or predisposing comorbid conditions like hypertension, anticoagulation, or recent surgery.Thrombocytopenia in a patient with a platelet count less than 30,000/L is associated with a 4.2-fold increased mortality risk compared to thrombocytopenia in a patient with a platelet count more than 30,000/L, so platelet count in patients with severe ITP must be immediately increased above 30,000/L to prevent lethal bleeding symptoms.[13]Rapidly raising the platelet count is therefore essential, especially in patients with severe ITP.In the first line of treatment, corticosteroids, IVIg, and anti-D antibodies are used.In urgent situations, high-dose IVIG therapy is a suitable first-line treatment because it can quickly alleviate symptoms. Eradication of H. pylori infection is advised for patients who have an active infection because some research suggests a potential link between ITP and H. pylori infection.Ten to twenty percent of patients are resistant to corticosteroid and/or IVIg therapy after receiving initial treatment. Romiplostim and eltrombopag, two thrombopoietin receptor agonists, have been shown to be very successful in treating ITP patients whose condition has relapsed or is resistant to first-line therapy[14].Only a 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 2015 revealed 12 articles that included 12 cases of ITP detected with oral hemorrhage as the first symptom in the English literature[15,16]. Eleven of the 12 patients were less than 40 years in age (3 children and 8 adults). Eight patients presented with gingival bleeding, and four patients presented with hemorrhagic bullae on the buccal mucosa or the tongue as an early sign of ITP. Gingival bleeding is one manifestation of inflammation that is commonly observed in daily clinical practice; however, uncommon bleeding of sudden onset that is difficult to control could be a sign of underlying systemic disease, such as ITP or leukemia[17 ,18,19]Based on the patient's peculiar oral bleeding symptoms in this case, we suspected a hematologic condition. Simple laboratory analysis revealed severe thrombocytopenia, so the patient was immediately referred to haematologists for additional assessment.After additional tests, he was admitted to the hospital right away and given the ITP diagnosis.Thrombopoietin receptor agonists were successfully used to treat the patient despite the fact that his disease was resistant to conventional therapies, and he avoided developing a fatal hemorrhagic event.A case of ITP detected following the presentation of oral hemorrhage as a first symptom was reported. Dentists need to be aware of how ITP presents clinically and pay close attention to spot cases that haven't been recognised before.Dentists should order the proper haematological tests to rule out or identify hemorrhagic disease when they notice unusual gingival bleeding, hemorrhagic bullae, or hematomas in the oral cavity so that patients can be referred to haematologists.

CONCLUSION

Oral Physicians must have a basic insight of oral findings of bleeding disorders and should arrange and prepare necessary assistance in advance.An early recognition of such lesions alarm oral physician to further deepen observation and advise appropriate investigations so that severe complications can be avoided. However cooperation among Patient, Hematologist and Oral Physician is equally important to successfully manage the fatal bleeding disorders.

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