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Ancillary Finding of Thrombocytopenic Purpura; An Engima in Diagnosis

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Abstract: ***Thrombocytopenic purpura is a hemorrhagic disorder characterized by decreased production or increased destruction of platelets. It can be caused due to various factors such as immune mediated mechanism, drugs and infections. According to its severity, it can manifests as easy bruising, spontaneous gingival bleeding, petechiae, ecchymosis or hematoma. The laboratory investigation is important at the first visit for early diagnosis and prophylactic measures during any dental procedures. This paper outlines that the clinical signs of idiopathic thrombocytopenic purpura are rare and the professional must be able to recognize these conditions and provide effective treatment for the patient.***

Keywords: bleeding disorder, platelets, idiopathic thrombocytopenic purpura, ecchymosis, hemostatic agents

1. Introduction

Despite the fact that thrombocytopenic purpura is considered common and easily recognized disease, no firm data or past recent history is available on its incidence. The incidence of thrombocytopenic purpurain adults is 6.6/one lakh person per year[(1)]. Thrombocytopenic purpura can be inherited or acquired organ specific autoimmune hemorrhagic disease. It is mainly attributed to the early destruction of platelets by the activated reticuloendothelial system[(2)]. This paper focuses on the ancillary finding of thrombocytopenic purpura and briefly discusses the general or oral manifestations of thrombocytopenic purpura.

2. Case Report

A 62 year old female patient, reported to the department of oral medicine and radiology with a chief complaint of difficulty in chewing due to missing teeth. The patient had no relevant medical history except that she was hospitalized before 6months for viral fever. The past dental history revealed that the patient had undergone uneventful total extraction and alveoloplasty before 6months. The patient was referred to the department of prosthodontia for rehabilitation. During the prosthetic procedure, the posterior aspect of the right buccal mucosa was traumatized while taking primary impression. On the day of trauma, there was a laceration surrounded by erythematous area at the site. Two days later, slough was seen at the site which was scrapable and an ecchymosis was seen underlying. The ecchymosis measured about 2cms*4cms. The clinical presentation of ecchymosis raised a suspicion of any underlying bleeding disorder. Based on suspicion, patient was sent for hematological investigation which revealed that the platelet count was 1,30,000/microlitre (NORMAL:1.5-4.5 lakhs/ microlitre). Later, the patient was referred to consult a physician where she was diagnosed with idiopathic thrombocytopenic purpura. She was further treated for idiopathic thrombocytopenic purpura and the ecchymosis was resolved in a week.

3. Discussion

Though idiopathic thrombocytopenic purpura has peculiar features of petechiae, spontaneous bleeding, ecchymosis, this patient has no significant medical history or oral manifestation after extraction and alveoloplasty. Since, the clinical presentation show idiopathic thrombocytopenic purpura attenuation, which has been proven by hematological investigation. Generally, thrombocytopenic purpura can be acute and chronic occurrence in children is an acute thrombocytopenic purpura and in case of adults it is chronic thrombocytopenic. The incidence of ITP increased with age. Chronic thrombocytopenicpurpura manifests as a subcutaneous hematoma, GI bleeding, epistaxis, hematuria, menorrhagia[(3)]. The female to male ratio was 1.7 and the mean age of occurrence was found to be 56 years[(4)]. oral manifestation is considered to be the early finding of thrombocytopenic purpura with features that include easy bruising, single or multiple petechiae, ecchymosis, hemorrhagic blisters, spontaneous bleeding which is common in buccal mucosa, junction between hard and soft palate(denture bearers), gingival, sublingual mucosa, floor of the mouth and lateral border of the tongue[(5)]. Minor trauma to any site may provoke bleeding. Patient tend to have poor oral hygiene due to the fear of gingival bleeding, so they are prone to periodontitis and dental caries[(6)]. Systemically, the drug of choice is prednisolone (1.2mg/kg/day) and desmopressin (0.3microgram/kg)[(7)]. In case of profuse bleeding during dental procedures hemostatic agents such as foam gel, surgicel, epsilon aminocaproic acid, anti-fibrinolytic agents, 5% concentrated tranexamic acid mouth washes can be used. In case of any invasive oral surgery, systemic steroid administration can be given before 7-10days or platelet infusion can be done before 30minutes as a prophylactic measure[(8)]. While performing dental procedure in patients with bleeding disorders, the platelet count should be above 50,000/mm^3 . [(9)]the dentist must be careful while puncturing needles and adapting bracket wires. Prescribing antiplatelet drugs and nerve blocks should be avoided. In case of any invasive procedure, antibiotic prophylaxis can be performed to reduce the risk of post operative infection[(9)].

4. Conclusion

Thrombocytopenic purpura is not an absolute contraindication for dental procedures. However, according to its severity the treatment must be planned. Oral mucosa is the mirror of general health or disease. Hence, every dentist should be aware and be responsible in recording the medical

history as well as evaluating even the minor clinical changes.

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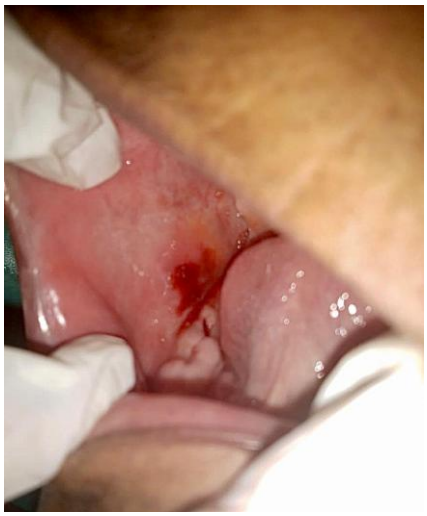

Figure (a)

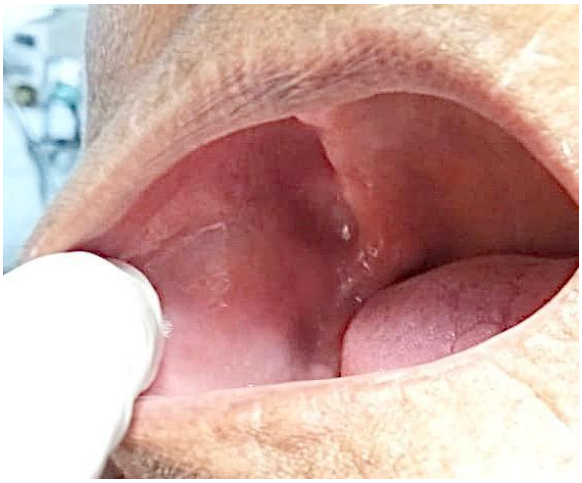

Figure (b)