

SEVERE GINGIVAL HEMORRHAGE AS FIRST CLINICAL MANIFESTATION OF THE PRIMARY IMMUNE THROMBOCYTOPENIC PURPURA: CASE REPORT AND REVIEW OF LITERATURE

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Abstract

Primary immune thrombocytopenic purpura (ITP) is an autoimmune bleeding disorder characterized by isolated thrombocytopenia. The characteristic clinical indicators of immune thrombocytopenic purpura include: easy bruising of the skin, petechiae, ecchymosis, epistaxis, gastrointestinal bleeding, haematuria and gums bleeding. The diagnosis and management of spontaneous gingival haemorrhage can be challenging and may require a systematic medical approach. We present the case of a patient with ITP who developed severe bleeding from gums, being the first clinical manifestation of the disease. Adequate dental treatment is the requisite in order to prevent inflammation, gingival haemorrhage and infection in ITP patients. Dentists must carefully examine the oral cavity and inter-disciplinary consultation with the haematologist contribution is essential for planning dental treatment of ITP patients and determining the severity of the disorder.

Keywords: *primary immune thrombocytopenic purpura, gingival haemorrhage, dental care.*

INTRODUCTION

Primary immune thrombocytopenic purpura (ITP) is an autoimmune bleeding disorder characterized by isolated thrombocytopenia in the absence of other causes that may be associated with thrombocytopenia (1). It is formerly known as ITP, and is primarily a disease of diagnosis by exclusion. Only when other causes of thrombocytopenia are excluded, a diagnosis of immune thrombocytopenic purpura is made. These causes may include: megaloblastic anaemia, congenital thrombocytopenia, von Willebrand

disease, disorders that evolving with reduction in the number of megakaryocytes of the blood marrow such as leukaemia, aplastic anaemia or myelodysplastic syndrome, certain infections (human immunodeficiency virus infection, bacterial and viral infections) or medications (2). The clinical features of ITP are different in adults from the clinical features seen in childhood (3). ITP in childhood presents as an acute form and is usually self-limiting. ITP seen in adults persists for longer periods and rarely resolves spontaneously. The patho-

physiology of ITP is characterized by autoantibody-mediated platelet destruction along with suppression of their production (4). Manifestations of ITP range from no clinical symptoms to severe bleeding. The characteristic clinical indicators of ITP include: easy bruising of the skin, petechiae, ecchymosis, epistaxis, gastrointestinal bleeding, haematuria and gums bleeding (5).

There are not many reports describing patients with ITP managed in dental practice. It is very important for a dentist to be aware of the clinical presentation of ITP. Thus, we present the case of a patient with ITP who developed severe bleeding from gums, being the first clinical manifestation of the disease.

PATIENT AND METHODS

We report the case of a 52-year-old female patient that went to a dental office with a chief complaint of spontaneous gingival bleeding.

Extra-oral examination revealed excessively dry lips, which were moderate bruised. There were no lesions anywhere else on the body at the time.

Intraoral examination revealed, spontaneous gingival bleeding. Submucosal ecchymosis at the apex of the tongue and haemorrhagic bullae of the buccal mucosa were noticed.

The patient reported that she did not brush her teeth regularly but it was observed that she did not have any periodontal disease that would cause any spontaneous haemorrhage. Halitosis was also present. Because, gingivorrhagia was associated with hemorrhagic manifestations in the oral mucosa, the patient was referred to hematology for a specialist consultation.

A complete hemogram was performed which revealed a platelet count (PLT) of $0/\text{mm}^3$, haemoglobin concentration of 10.7g/dL and a total leucocyte count of $9000/\text{mm}^3$. The blood smear revealed no platelets. The coagulation profile that included International Normalized Ratio (INR) activated Partial Thromboplastin Time (aPTT) and fibrinogen was normal.

The medical history revealed that the patient did not have any systemic disease and had never presented bleeding related disorders. Furthermore, the patient did not use any medication and no trauma history.

Immunologic tests (HBs antigens, Anti-HCV, Anti-HIV, Anti-helicobacter pylori) results were negative. Lymphadenopathy, hepatomegaly, and splenomegaly were absent and ITP diagnose was made.

The corticosteroids were prescribed for the patient and her platelet count increased. When the platelets were $25.000/\text{mm}^3$ in number, the gingival bleeding was stopped. The patient was discharged after 9 days of hospitalization, hemodynamically stable, with a Hb of 12 g/dl and PLT count of $75.000/\text{mm}^3$ and no active bleedings. The clinical evolution is

showed in figure no.1. Dietary recommendations and dental consultation were made. The patient was motivated to practice regular tooth brushing with a soft-bristle toothbrush and 0.2% chlorhexidine mouth wash. Also, the importance of using interdental brushes for her oral health was noticed, after hematologic recovery.

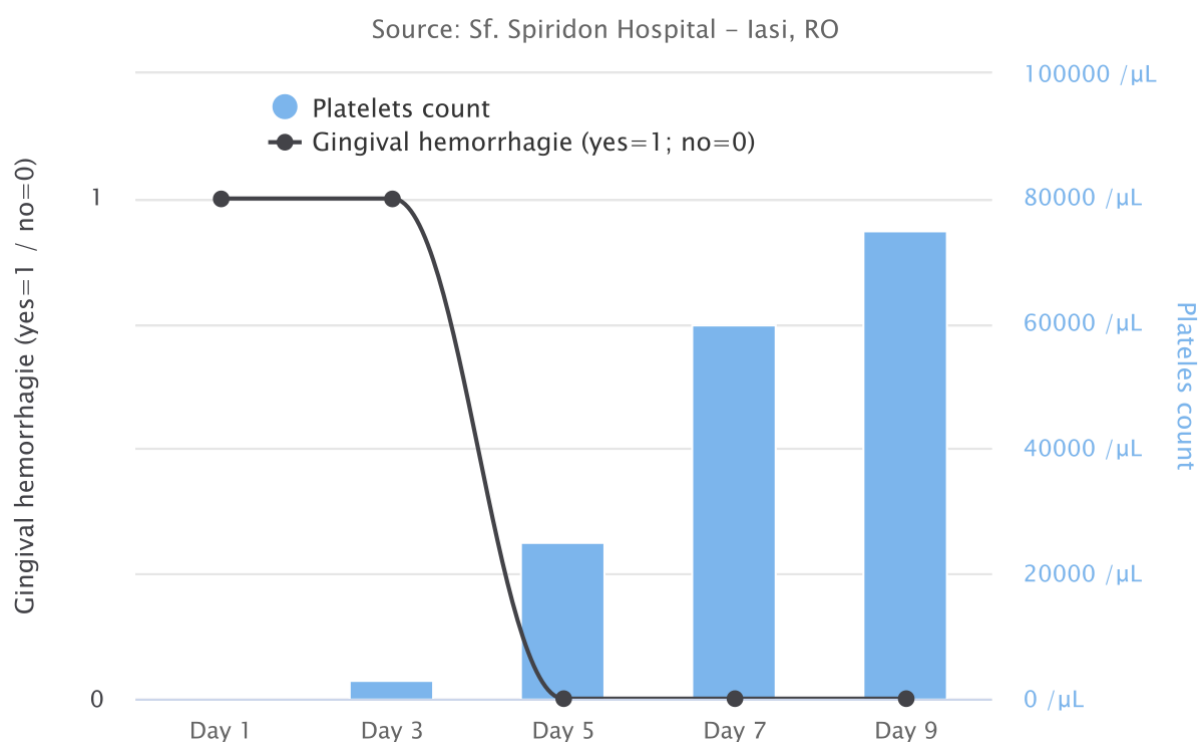


Fig. 1. Clinical evolution of ITP patient.

DISCUSSIONS

The diagnosis and management of spontaneous gingival haemorrhage can be challenging and may require a systematic medical approach.

The medical history has to exclude others causes of gingival bleedings such as periodontal disease, anticoagulant therapy, recent traumatism (6).

In our case all these causes were excluded and a suspicion of a haematological disease was made.

Oral manifestations of ITP include: petechiae, ecchymoses or haematomas in easily traumatized areas such as buccal mucosa, lateral borders of the tongue, spontaneous gingival and mucous-cutaneous haemorrhage (7).

In the present case, oral lesions and spontaneous gingival haemorrhage were observed. Platelet count is the major parameter for predicting severity of ITP and risk of haemorrhage. A platelet count of $100.000/\text{mm}^3$ has been established as threshold for diagnosis (1) but in our case was founded a severe thrombocytopenia (no platelets on the peripheral blood smear and on the hemogram) with a high risk of spontaneous haemorrhage. Spontaneous bleeding associated with severe thrombocytopenia most often involves small vessels and the common sites of such haemorrhage are the skin and mucous membrane of the oral cavity, gastrointestinal tract and genito-urinary tract (3). Patients are asymptomatic in the presence of platelet counts that are greater than $50.000/\text{mm}^3$ (8). The management of the ITP is to stop the bleeding and to increase the platelet count where is no risk for spontaneous bleeding.

Corticosteroids are the first choice for the treatment of the patients with ITP, the treatment being for a long period of time. Our patient had a good response regarding the corticosteroids.

The treatment should be individualized with each patient, the main

goal being to increase the quality of life of patients.

As a general guideline, while routine dental surgical procedures may be performed in cases with a platelet count as low as $50.000/\text{mm}^3$, a minimum level of $75.000/\text{mm}^3$ has been suggested for other major surgeries (3, 7).

Adequate dental treatment is the requisite in order to prevent inflammation, gingival haemorrhage and infection in ITP patients (9). Sometimes, like in our case, the oral manifestation can be the first sign of a bleeding disorder. So, dentists must carefully examine the oral cavity and consultation with the haematologist is essential for planning dental treatment in case of ITP patients and determining the severity of the disorder (10).

CONCLUSIONS

The clinical symptoms of hematologic diseases like chronic ITP may initially start in the oral cavity and they might be a big challenge for a dental practitioner.

A multidisciplinary approach is essential to increase the ITP patients quality of life.

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