ORAL MANAGEMENT OF IDIOPATHIC THROMBOCYTOPENIC PURPURA PATIENT: CASE REPORT

| Meriem Harrizi [1] | Sidi Mohammed Bouzoubaa [2] | and | Ihsane Ben Yahya [3] |

[1] Resident , Casablanca hassan II University | departement of oral surgery in dental consultation and treatment | Casablanca |Morocco |
[2.] Professor, Casablanca hassan II University | Departement of oral surgery in dental consultation and treatment | Casablanca | Morrocco |
[3] Professor, Chief physician at the center for Dental Consultations and Treatments at the CHU Ibn Roched Hospital in Casablanca , Chief at departement of oral surgery and President of FDI, Casablanca hassan II University | departement of oral surgery in dental consultation and treatment | Casablanca | Morrocco |

| Received March 20, 2021 | | Accepted March 28, 2021 | | Published April 02, 2021 | | ID Article | Meriem–Ref25-ajira020321 |

ABSTRACT

Immune thrombocytopenic purpura (ITP) is a rare autoimmune disease that can affect the child or the adult. It is characterized by increased destruction of platelets by the reticuloendothelial system and inadequate production of platelets by the bone marrow. It manifests itself as a more or less severe hemorrhagic syndrome. With regard to oral health, ITP can often be manifested by having spontaneous hemorrhagic gingiva, alterations of the oral mucosa, including petechiae, bruising and hematoma. The objective of this work is to describe the oral management of the patient with ITP through a clinical case.In this work, we will present our diagnostic and therapeutic approach to a man aged 56 consultant for functional impairment. He had a chronic ITP. The patient reports performing extraction and incision therapy, without special precautions and without any hemorrhagic incident.
Keys words : Thrombocytopenia, hemorrhagic disorders ,oral surgery ,Immune thrombocytopenic purpura, hemorrhagic manifestation.

1. INTRODUCTION

Thrombocytopenic purpura (ITP) is a rare autoimmune condition in which platelets are the wrong target of the immune system. The incidence in adults is estimated at 1.6 cases per 100 000 subjects per year. There is a moderate female predominance with a sex ratio close to 1.3. ITP can occur at any age. The etiology of ITP is unknown. ITP is not a genetic condition, familial forms are exceptional [4]. The diagnosis of ITP is a diagnosis of elimination. There is no test to assert the diagnosis.
Physiopathology thrombocytopenia is linked to the production of antibodies by a clone of lymphocytes directed against the GPIIbIIIa and GPIbIX complex. Antibody-coated platelets are then captured by the reticulohistiocytic system (especially at the spleen) and destroyed.

Clinical examination reveals cutaneous and mucosal haemorrhagic manifestations caused by severe thrombocytepenia: petechiae, purpuric macules, bruises, hemorrhagic bubbles and vesicles, epistaxis, gingivorragia, subconjunctival hemorrhages [5].

The biological diagnosis is made with the help of a quantification of the blood count on a citrate tube if doubt about false thrombocytopenia with EDTA, blood smear analysis by the hematologist biologist, electrophoresis of the serum proteins or weighting of the Ig [4].

The first-line treatment is oral corticosteroid therapy which can be supplemented by the injection of immunoglobulins into severe forms. In adults, once the acute phase is over, ITP progresses to chronicity in 70% of cases. Monitoring is essential and the appearance of oral bleeding lesions is one of the first signs of seriousness [1]. It is important for dentists to be aware of ITP in order to properly recognize this condition and provide adequate treatmen t to the patient. The aim of this work is to cite the peculiarities, oral manifestations in patients with ITP and to describe the discordance between clinical manifestations and hematological assessment in a patient with ITP through a clinical case.

1. Case report

It was a 56-year-old man consulting for functional discomfort. the interview revealed that the patient had a chronic ITP of chance discovery in 2014 (malaise and vertigo) with a platelet count of 11,000 mm3 without any suggestive clinical signs.
The patient reports performing extraction and incision therapy, without special precautions and without any hemorrhagic incident.

*Corresponding author Author & Copyright Author © 2021: | Meriem Harrizi *|.

Clinical examination revealed poor hygiene (tartar deposition), recession and mobility of the maxillary first molar and the first maxillary premolar (Figure 2, 3, 4). The panoramic radiography showed widespread deep bone lysis in all the teeth (Figure 5). The patient has generalized chronic periodontitis. The platelet count at the consultation date was 51,000 / mm3 and a MCV of 85 µ3.

In consultation with her hematologist, corticosteroid therapy was indicated, which allowed an increase in platelet count to 80,000 / mm3.

2. Emergency treatments:

The steps prior to the care of this patient were:

- Make contact with the hematologist,
- the patient's preparation required corticosteroid treatment (dexamethasone 20 mg / day) for 10 days
- A prescription of an NFS was made the day before surgery and revealed a platelet count of 80 000 / mm3

The extraction of the first maxillary molar and the first maxillary premolar were done with the establishment of local hemostasis means (hemostatic sponges and sutures), and without any haemorrhagic incident in per and postoperatively (Figure 6).

Figure 1: Extraoral view.

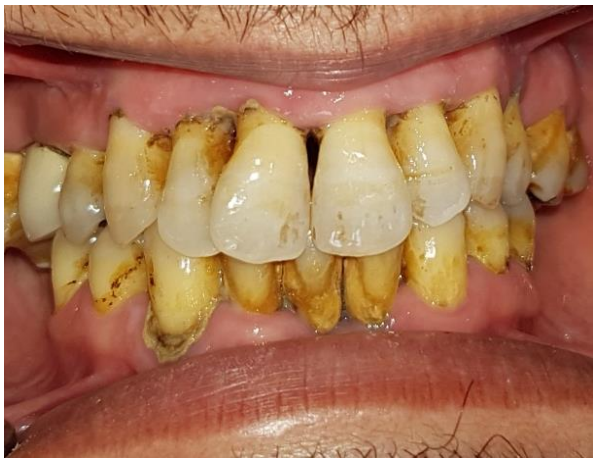

Figure 2: The figure presents the intraoral view: front view.

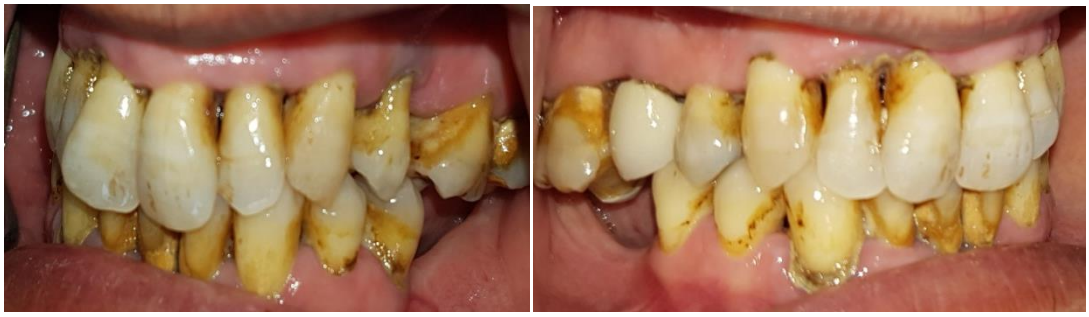

Figure 3: intraoral view: left and right lateral.

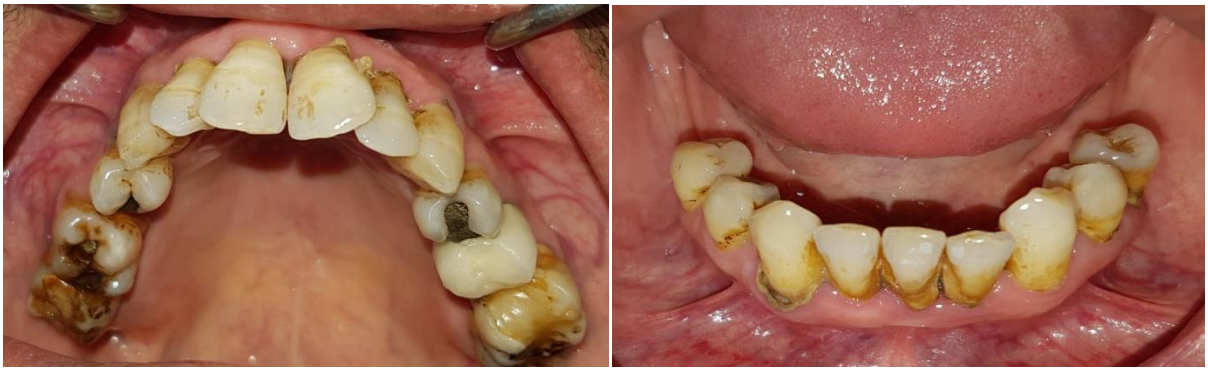

Figure 4: intraoral view: maxillary occlusal view and mandibular.

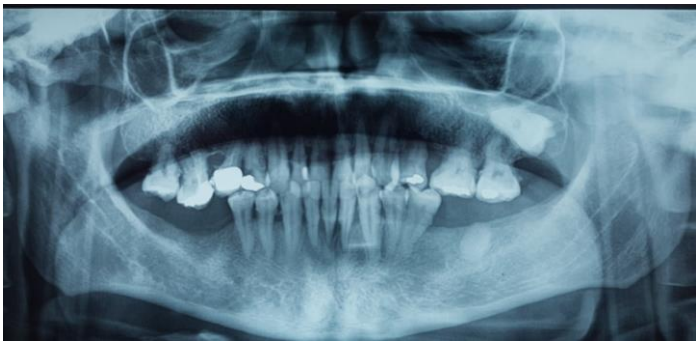

Figure 5: A panoramic radiograph.

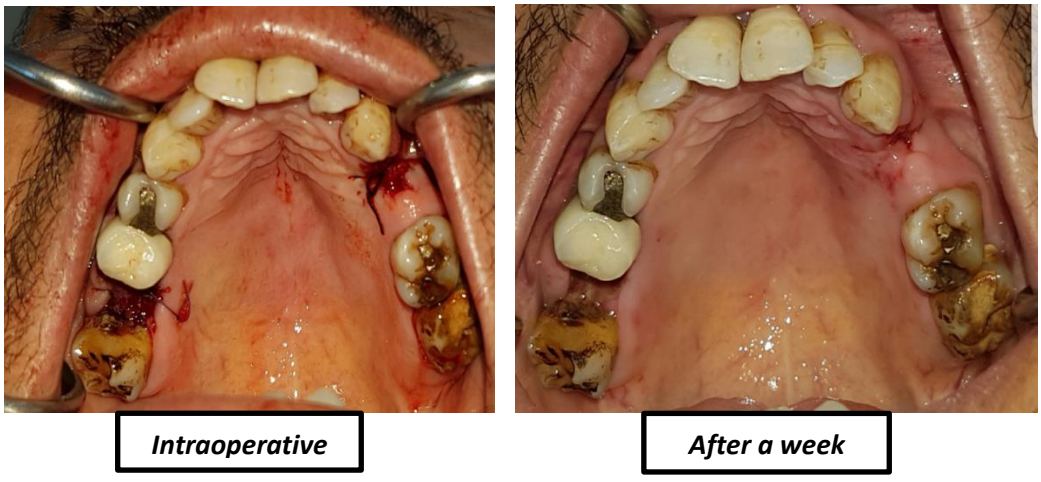

Figure 6: intra oral view after emergency treatments.

4. DISCUSSION

Peripheral immunologic thrombocytopenic purpura (ITP) is characterized by the presence of thrombocytopenia (platelets <150 g / L) caused by the presence of platelet autoantibodies which cause their destruction by mononuclear phagocytes, mainly in the spleen and by a lack of medullary production of immunological origin [4]. ITP can often be manifested by changes in the oral mucosa, including petechiae, bruises and hematomas in easily traumatized areas [3]. A prospective cohort study was performed by Annette et al., (2003) on 245 patients with ITP showed that 27.8% of patients were asymptomatic and only diagnosed after a complete blood count [6].

Nowadays, no physiopathological explanation is advanced on a possible relationship between oral manifestations and the level of platelets in patients with ITP. This relationship was demonstrated in our case with a platelet count of 51,000 / mm3 without any bleeding and cutaneous signs. In the case presented, the platelet count of the patient was 51 000 / mm3 and a MCV of 85 µ3 and the examination of the oral and cutaneous mucosa showed no hemorrhagic manifestation.

With regard to oral health, the ITP patient should brush their teeth twice a day with a soft toothbrush. Dental floss should be avoided when the number of platelets is low. Para-apical anesthesia and intra-ligament can be performed if the platelet count is greater than 30,000. Truncal anesthesia is contraindicated (risk of hematoma formation) [7]. The complete periodontal treatment of thrombocytopenic patients has been shown schematically in (Figure 7). Dental treatment depends on the number of platelets. minor and major surgery can be performed safely if the platelet count is ≥50,000 cells/µL and ≥ 80,000 cells/µL, respectively (Figure 8) [8]. For invasive procedures such as periodontal surgery, platelet transfusion may be necessary depending on the number of platelets (figure 8). Usually, platelet transfusion is done 30 minutes before surgery. Alternatively, oral steroids can increase platelet levels to safe limits and can be prescribed 7-10 days before surgery as in the case presented. These patients require rigorous dental management. In our case the dental extractions were performed with a platelet count of 80 000 / mm3 with the establishment of local hemostasis means (hemostatic sponges and sutures) (Figures 6,8).

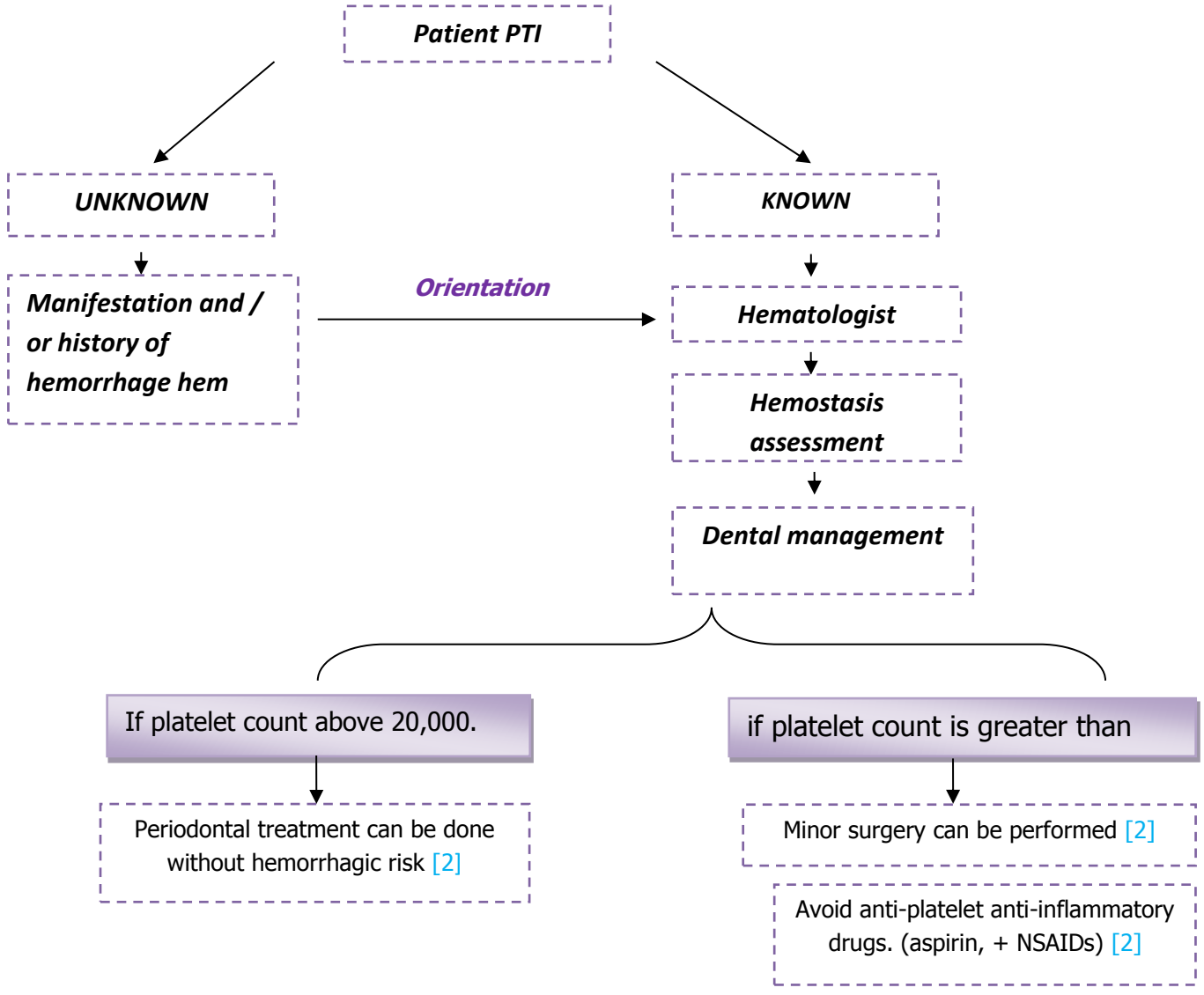

Figure 7: Decision tree management of thrombocytopenic patients.

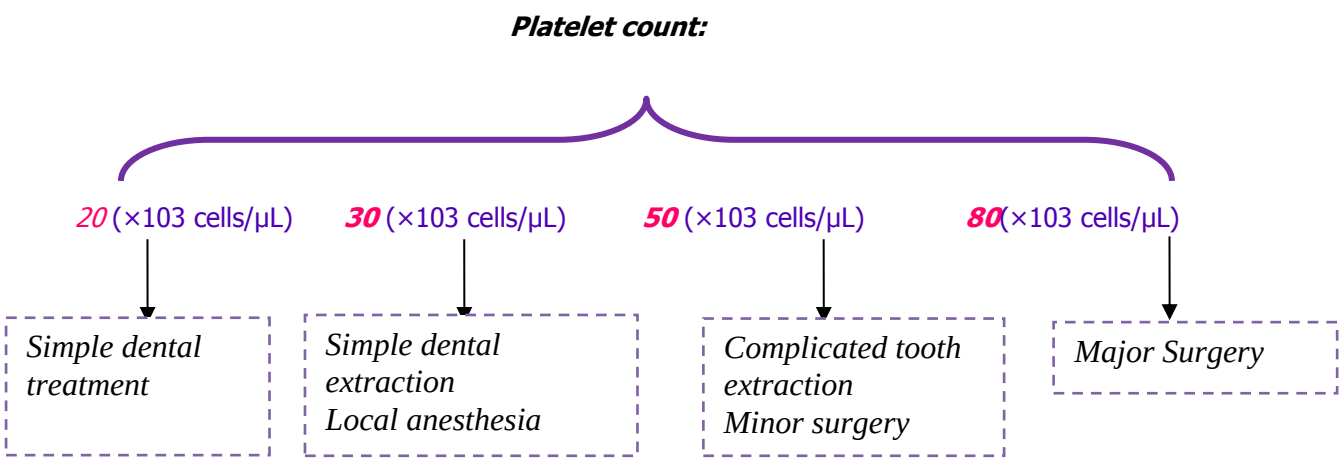

Figure 8: The recommendations of the dental treatment according to the rate of platelets (2).

5. CONCLUSION

Patients with ITP present a high risk of bleeding. In patients with ITP, platelet control and patient motivation play an important role in the prevention of hemorrhagic gingiva and periodontal disease. Thrombocytopenia is not an absolute contraindication to dental treatment. But they require a specific and rigorous management protocol. It requires close collaboration between the dentist and the hematologist. The knowledge of the oral manifestations of the ITP should allow the dentist to discuss the diagnosis in order to refer the patient to a medical structure adapted to his urgent care.

Dental consultation is essential for the diagnosis and improvement of medical conditions. Adequate oral hygiene can be achieved with limited performance and hematological disorders are not a handicap for dental and periodontal procedures in appropriate circumstances [10].

6. REFERENCES

1.Charles Albisetti, Marc Baranes, Louis Maman .Anomalies de la muqueuse buccale révélant un purpura thrombopénique immunologique. *Médecine buccale chirurgie buccale*. 2016 ; (2): 151-157,
2. Neha Bansal, Manika Jindal, Narinder Dev Gupta, Pradeep Shukla .Clinical guidelines for periodontal management of idiopathic thrombocytopenic purpura: Current considerations . *International Journal of Oral Health Sciences*. 2017; (7): 180.151.
3.Stasi R. How to approach thrombocytopenia. *Hematology Am Soc Hematol Educ Program.* 2012; 19-7. doi: 10.1182/asheducation-2012.1.191
4.Haute Autorité de Santé. Purpura thrombopénique immunologique de l'enfant et de l'adulte. Protocole national de diagnostic et de soins. Octobre 2009.
5.Rodeghiero F, Michel M, Gernsheimer T, Ruggeri M, Blanchette V, Bussel JB, et al. Standardization of bleeding assessment in immune thrombocytopenia: report from the International Working Group. Blood. 2013; (121): 2596-2606.
6. Clinically significant newly presenting autoimmune thrombocytopenic purpura in adults: a prospective study of a population-based cohort of 245 patients. Neylon AJ, Saunders PW, Howard MR, Proctor SJ, Taylor PR; Northern Region Haematology Group. *Br J Haematol*. 2003 Sep; 122(6): 966-74.
7.Immune Thrombocytopenia-A Practical Guide for Nurses and Other Allied Healthcare Professionals. Leiden, NL: European Group for Blood and Marrow Transplantation; c2011. Available from: https://www.ebmt.org/Contents/Resources/Library/Resourcesfornurses/Documents/ITP%20Handbook.PDF. [Last cited on 2016 Jul 08].
8.Br J Haematol .British Committee for Standards in Haematolog y General Haematology Task Force. Guidelines for the investigation and management of idiopathic thrombocytopenic purpura in adults, children and in pregnancy. 2003(120): 574-96.
9.American Academy of Pediatric Dentistry. Guideline on dental management of pediatric patients receiving chemotherapy, hematopoietic cell transplantation, and/or radiation. *Pediatr Dent.* 2013; (35):E185-93.
10.Guzeldemir E1. The role of oral hygiene in a patient with idiopathic thrombocytopenic purpura. *Int J Dent Hyg*. 2009; 7(4): 289-93.

Cite this article: Meriem Harrizi, Sidimohammed Bouzoubaa, and Ihsane Ben Yahya. ORAL MANAGEMENT OF IDIOPATHIC THROMBOCYTOPENIC PURPURA PATIENT: CASE REPORT. *Am. J. innov. res. appl. sci. 2021; 12(3): 92*-96.