Idiopathic Thrombocytopenic Purpura with Pre-Retinal Macular Hemorrhage in a 19 Year Old Nigeria Female

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Introduction: Idiopathic thrombocytopenic purpura (ITP) is an acquired hemorrhagic disorder characterized by thrombocytopenia with a platelet count less than150 x 10^9/L, a purpuric rash, a normal bone marrow and the absence of signs of other identifiable causes of thrombocytopenia.
ITP is classified as acute or chronic (persistence of thrombocytopenia for more than 6 months from the initial presentation of signs and symptoms). Acute ITP is more prevalent among children younger than 10years of age and males and females are affected equally. Chronic ITP affects adolescents more often than younger children, with females more affected than males.[1]

Case Report: Miss NR, a 19year old female university undergraduate student, first presented to gynecology clinic of our hospital in January 2018 on account of menorrhagia. A diagnosis of severe anemia secondary to menorrhagia was made. A laboratory evaluation revealed a hemoglobin of 5g/dl and a platelet count of 2 x 10^9/L. She was then referred to the hematology clinic, where a diagnosis of ITP was made. On 08/03/2018 she was referred to the eye clinic on an account of painless sudden loss of vision in the left eye (LE) of one month duration. On ocular examination, her entry visual acuity (VA) was 6/6 and 6/60 in the right eye (RE) and LE respectively. Findings in the anterior segments and intraocular pressures were normal. The only other significant finding was a pre-retinal macular hemorrhage in the LE (figure 1). Hence a diagnosis of pre-retinal hemorrhage secondary to ITP was made after other causes of

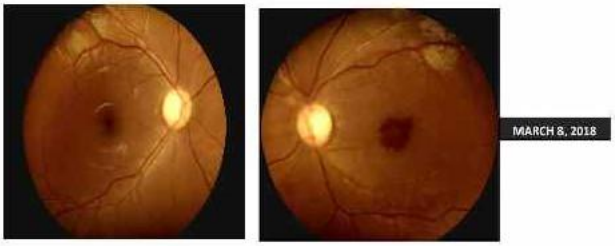

Fig. 1: Fundus photographs of the patient at presentation showing Right normal fundus and left macular pre-retinal hemorrhage

pre-retinal hemorrhage were excluded. The patient was duly counseled and managed conservatively by us while she received treatment (blood transfusion and oral steroid therapy) from the hematology clinic.
On the third follow up visit (15/06/2018), patient's VA in the LE improved to 6/12 in tandem with resolution of the pre-retinal macular hemorrhage (figure 2). The platelet count on that visit also improved to 357 x 10^9/L.

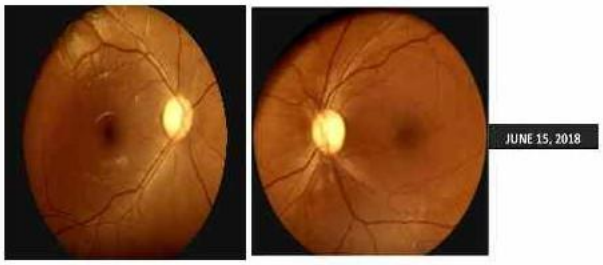

Fig. 2: Fundus photographs at 3rd follow up visit showing Right normal fundus and left resolved macular pre-retinal hemorrhage

Discussion: This study demonstrated that ITP is a cause of retinal hemorrhage as shown in other studies.[2-4] Our patient had severe anemia secondary to menorrhagia. A systemic work up, revealed a diagnosis of ITP, which can be caused by the immune system attacking and destroying platelets (leading to increased breakdown of

platelets). A normal platelet count is between 150 x 10^9/L and 450 x 10^9/L. People with ITP often have platelet count less than 20 x 10^9/L. Platelets are essential for blood coagulation and thrombocytopenia represents a major risk for spontaneous hemorrhage, as the number decreases, the risk of bleeding increases. ITP has been documented as a cause of intra-retinal hemorrhage, sub-retinal and vitreous hemorrhage.[2-4] The greatest risk is when the platelet count falls below 10 x 10^9/L. The initial management of ITP with oral corticosteroids and blood transfusion helped in the resolution of the retinal hemorrhage as demonstrated in this case and in another study.[3]

Conclusion: There is a place for conservative treatment in the management of pre-retinal hemorrhage secondary to ITP as ocular manifestations responds to correction of hematologic parameters. In addition, patients with blood dyscrasias including ITP should have ophthalmic evaluation as part of their overall care.

References

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