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Original Research Paper

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IDIOPATHIC THROMBOCYTOPENIC PURPURA PRESENTING AS MASSIVE RETINAL HEMORRHAGE: A CASE REPORT

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ABSTRACT

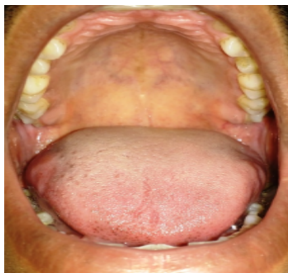
Idiopathic Thrombocytopenic Purpura (ITP) is an autoimmune disorder in which antibodies are directed against host platelet surface antigen resulting in their peripheral destruction and splenic sequestration, which leads to reduced platelet counts and subsequent complications of bleeding1. It affects approximately 1 in 10,000 in the general population. Idiopathic thrombocytopenic purpura often manifests with petechial skin rash, bruising or mucosal bleeding2. Ophthalmic involvement is exceptionally rare3.

KEYWORDS :

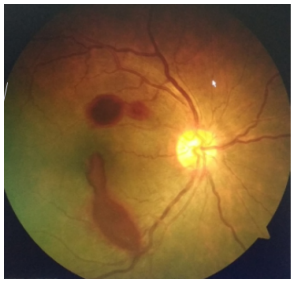
CASE REPORT

A 46 year old male presented to OPD with a history of sudden painless loss of vision in both eyes since 15 days, associated with floaters. No history of head or ocular trauma, no history of associated headache, no history of any toxic exposure, no history of hypertension or diabetes. On examination: visual acuity - counting fingers at 3 meters in both eyes. Anterior segment: pupillary reaction and intraocular pressure - Within normal limits. Other anterior segment findings were unremarkable in either eyes (Fig. 1). Dilated fundus examination revealed bilateral massive retinal hemorrhage at the posterior pole which were more pronounced in right eye (Fig. 3&4). There were no diabetic retinopathy changes noted. On systemic examination there were no petechiae, bruises or mucosal bleeding (Fig. 2). An initial impression of anemic retinopathy was made. The patient was sent for laboratory testing to evaluate for hematological dyscrasias. Complete blood count showed a hemoglobin level of 9.5 gm% (normal value: 12 to 14 gm%) , Red blood cell count as 2.52 millions and TLC count of 4,500. Platelets were markedly reduced as 0.65 lacs/cumm (normal: 1.50 to 4.50lacs/cumm) (Fig. 7&8). Rest blood profile was normal (bleeding time, clotting time, prothrombin time and partial thromboplastin time). A bone marrow biopsy supported the diagnosis of ITP, showing increased megakaryopoiesis (defined as the production of megakaryocytes in bone marrow that produce platelets) and erythropoiesis (defined as the formation or production of red blood cells) without other significant abnormalities.

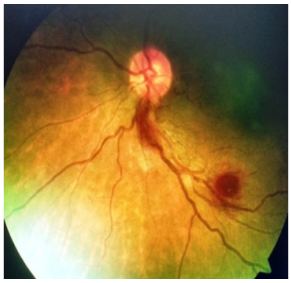
(Fig. 1)



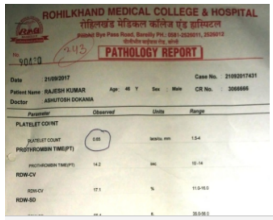
(Fig.2)



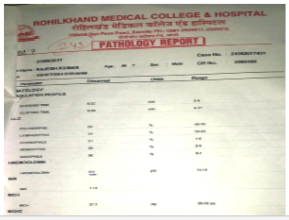
(Fig. 3 OD)



(Fig.4 OS)



(Fig.5)



(Fig.6)

MANAGEMENT

The patient was started with oral steroids (prednisolone), starting dose of 50 mg/daily (1 mg/kg/day) along with platelet transfusion. Blood counts attained normal levels within three weeks following therapy. In addition, the patient underwent regular ophthalmic evaluation. Oral steroids treatment was then slowly tapered down over next 3 weeks. Follow-ups at 1, 3 and 6 weeks showed partial to complete resolution of hemorrhages with corresponding improvement of vision to 6/36 and 6/12 in right and left eyes, respectively.

DISCUSSION

The adult form of ITP affects females more commonly than males4. Ophthalmic involvement in ITP is rare and initially manifesting with ocular features has been scarcely reported, with no large case series describing the spectrum of ocular findings in ITP. Frequent ocular manifestations associated with ITP include subconjunctival hemorrhage, vitreous hemorrhage and retinal hemorrhages that maybe subhyaloid or intra-retinal3. Other ophthalmic manifestations associated with ITP are intracranial bleeding in Terson type phenomenon5, hemorrhage within the optic tract, non-arteritic anterior ischemic optic neuropathy. This case was unique as the patient presented with only decreased visual acuity with no systemic features of ITP. Very few cases have been reported where intraocular hemorrhages were the presenting feature of ITP. Age related macular degeneration, polypoidal choroidal vasculopathy, trauma, choroidal tumors and retinal artery macroaneurysm are other etiologies of massive retinal hemorrhages6. High index of suspicion is mandatory for detecting this disorder. Clinical examination along with hematological tests confirmed the diagnosis of ITP. Oral steroids prove effective in partial to complete resolution of the condition with remarkable improvement in visual acuity.

Thrombocytopenia alone, even if severe, is rarely sufficient to cause significant retinal hemorrhages. However, combined with anemia it is a known risk factor and retinal hemorrhages in association with ITP have mostly been reported to occur with concurrent severe anemia. Retinal hemorrhages are often an indication of an

underlying blood dyscrasia, and their presence in the absence of a known etiology warrants evaluation. Ophthalmic examination along with thorough medical history, general and systemic examination especially of the skin and mucosal surfaces may raise the urgency of hematological evaluation. Further the visual prognosis depends on the severity of the disease and tolerance to corticosteroids.

CONCLUSION

Unexplained and suspicious posterior segment hemorrhages should be evaluated for ITP causation. The ophthalmic manifestations alone respond adequately to correction of hematological parameters and no additional therapy is warranted

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