Case study

Incidental finding of intraretinal haemorrhage in a case of tuberculous meningitis

ABSTRACT

Title-Incidental finding of intraretinal haemorrhage in a case of tuberculous meningitis.**Aim**- To necessitate the need for an ophthalmic eyecheckup in a case of tuberculous meningitis with sub ILM bleed.**Case history**-We present a case of a 19 year male with gradual, painless DOV in RE since few months. History,Visual Acuity, anterior segment was examined.OCT & fundus photography were recorded. Patient was a k/c/o extrapulmonary TB. Patient was reported to have RE intraretinal haemorrhage. Patient is on regular medical line of management for AKT and is being followed up.**Discussion**- Preretinal haemorrhage occur between posterior hyaloid & ILM. Sub-ILM haemorrhages leads to visual impairment. and can lead to transient visual loss with possibilties of self resolution. **Conclusion**-Therefore it is mandatory to evaluate & to necessitate the need for ophthalmic checkup in such patients.**Keywords**- Intraretinal haemorrhage, ILM bleed, Tuberculous meningitis , Extrapulmonary TB.

INTRODUCTION

Preretinal haemorrhage occur at the interface between the posterior hyaloid and inner limiting membrane. Less frequently, they are located between the ILM and the retinal nerve fibre layer. Sub-ILM

haemorrhages have been described in a variety of clinical settings and often lead to severe visual impairment because of their predilection for the macular region. Therefore patients with ocular complaints should be closely monitored and started on appropriate treatment.We present a case of an incidental finding in a 19 year old male with complaints of gradual, painless diminution of vision in right eye since few months and occurence of sub -ILM bleed and importance of regular follow up in such patients.

PRESENTATION OF CASE

We examined a 19 year old male who presented to ophthalmology outpatient department with chief complaints of diminution of vision in right eye since few months which was gradual, progressive and painless. Patient had a history of using spectacles since the last 10 years, which he had got last corrected 2 years ago. Patient was a k/c/o extrapulmonary tuberculosis and was on treatment for the same. Patient was under evaluation for seizure disorder.

His BCVA was 6/9p in RE & 6/6 in LE, colour vision & amslers test were normal. Extra ocular muscle movements in both eyes was full, free and painless.Both anterior segments were normal. However, fundus examination in RE showed clear media with healthy neuroretinal rim with cup disc ratio of 0.3:1 with an intraretinal haemorrrhagic bleed inferotemporal to optic disc.(Figure 1). Patient was followed up with non invasive investigation like OCT which was suggestive of right internal limiting membrane bleed (intra retinal) (sub ilm bleed). (Figure 2)

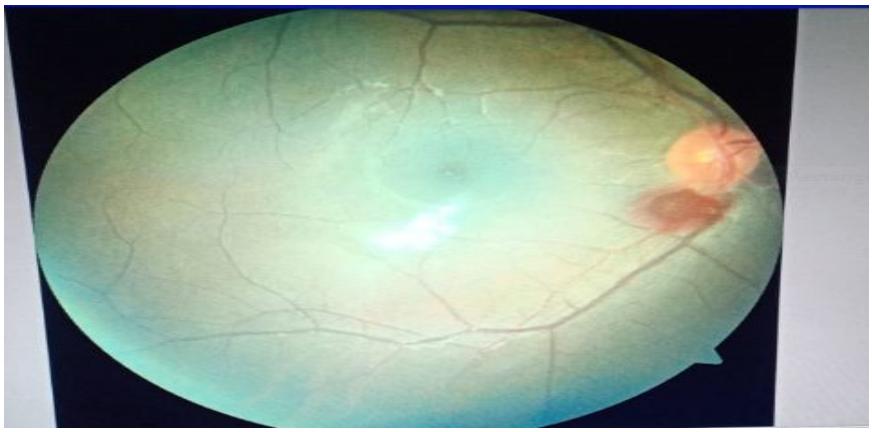

Figure 1 - Fundus image of right eye showing intraretinal haemorrhage inferotemporal to optic disc.

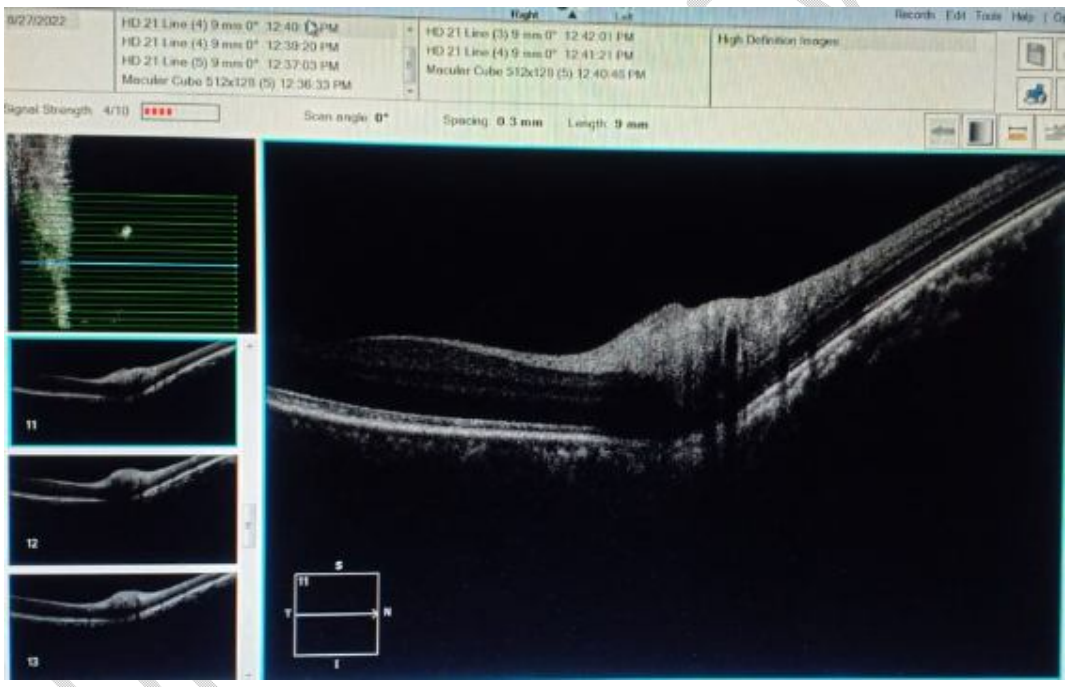

Figure 2- OCT image showing sub Inner limiting membrane bleed in right eye.

His general examination showed meningitis like feature as he had neck stiffness and neck rigidity.

A team of specialist, involving physician, neurophysician, chest physician, ophthalmologist was consulted. Laboratory investigations like complete blood count was done. CSF examination was done to rule out tuberculous meningitis. Patient was followed up with all the reports and was diagnosed as " Extrapulmonary- Tuberculous meningitis with intraretinal haemorrhage in right eye. After due cleareance patient was started on antituberculous treatment as the first line of treatment.

DISCUSSION

Spontaneous sub-ILM haemorrhages in absence of vascular disorders have mainly been associated with Valsalva retinopathy [(1)] and Terson's syndrome [(2)] .Terson syndrome constitutes of intraocular haemorrhage associated with SAH , intracerebral hemorrhage or traumatic brain injury. Sub-ILM haemorrhages have been discussed in a variety of conditions and lead to severe visual impairment because of their involvement for the macular region. The predilection to the macula is explained by the absence of firm attachments of the ILM to the retina at the posterior pole.[(3)] .Recent studies about association of covid 19 with thromboembolic events have necessitated routine ocular fundus examination and ordering D-dimer assay and other coagulation profile tests like PT, aPTT test in patients with COVID-19 presenting with sub-ILM bleed ,as prompt anticoagulation therapy is mandated in some of these patients. [(4,5)]The direct effect of viral infection, hypercoagulation and vasculopathy are proposed to be the factors leading to various retinal changes.(6)

CONCLUSION

Sub-ILM haemorrhages often occur in a specific clinical context and can lead to severe visual impairement in young patients. Given the excellent results and low complications rates, timely surgical intervention is justified when spontaneous resorption does not happen.

Sub ILM haemorrhage can lead to transient visual loss with possibilties of self resolution. Therefore it is mandatory to evaluate such patients.

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