

Roth spots in RVD patient an incidental finding

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ABSTRACT

Roth spots are considered as pathognomic for sub acute bacterial endocarditis.They are non specific and may be found in many other diseases. We observed Roth spots in a patient with RVD , an incidental finding on fundus examination with associated right side third nerve palsy.

KEYWORDS : RVD,ptosis,third nerve palsy,roth spots

Methods:

General & Slit lamp examination, extraocular movements , visual acuity , fundus examination,cranial nerves examination.

Case history-

A 40 years old male patient presented with drooping of right upper eyelid,limitation of ocular movements right eye for one month.,He had history of diplopia preceding drooping of eyelid and associated headache .He is a known RVD patient and on ART for the past eight months.

Ocular examination,

Ocular movements- O.D-there is limitation of adduction,elevation,depression , severe ptosis ,MRD1 is negative,Levator function is less than 1mm,poor bell's phenomenon,pupil is mid dilated,light reflexes-direct light reflex and consensual to other eye are absent.OS-no abnormality detected.

Visual acuity - OU BCVA- 6/18.

Other cranial nerves examination- normal.

Slit lamp examination- OU-No obvious conjunctival and corneal pathology noted.A.C depth normal.

Fundus examination with distant Direct ophthalmoscope-multiple white centered haemorrhages scattered all over the fundus are seen more in OD in an otherwise clear media and normal fundus.

Investigations have been done to ascertain causes for Roth spots and third nerve palsy

Hb%-5gm%,TC-6900 cells/mm³,DC-N-62%,L-36%,E-2%
ESR-25 mm in 1st hour,
CD 4 cell count-200 cells/mm³,
peripheral blood smear-features suggestive of dimorphic anaemia.
CT Brain-Normal study
Echo-normal EF-80%.

Conclusion-

Roth spots are considered as pathognomic for sub acute bacterial endocarditis.They are non specific and may be found in many other diseases. We observed Roth spots in a patient with RVD.

Discussion-In 1872 Moritz Roth, a pathologist at the University of Basel described a retinal condition in patients who were gravely ill with bacteraemia,multiple scattered retinal haemorrhages and termed it as Retinitis septica.(1)In1878, Litten assigned the name 'Roth spot' to these white centred retinal haemorrhages, and gave

further detailed description of these lesions. White-centred retinal haemorrhages have been observed in a variety of conditions with no obvious single underlying aetiology (1). White-centred haemorrhage may result from the rupture of retinal capillaries and the extrusion of whole blood. Subsequent platelet adhesion to damaged endothelium and the platelet release reaction initiates the coagulation cascade that results in the formation of a platelet-fibrin thrombus.Morphologically, this fibrin thrombus appears as a pale white lesion in the centre of the haemorrhage.(1)

Conditions in which roth spots are seen are subacute bacterial endocarditis, leukaemias, anaemia, anoxia, carbon monoxide poisoning,prolonged intubation during anaesthesia, hypertensive retinopathy, pre-eclampsia, diabetic retinopathy.(1)(2)

The retinal hemorrhages in HIV patient may be flame-shaped, dot-blot or punctate peripheral intraretinal hemorrhages; occasionally Roth spots are seen. Roth spots can be due to microangiopathy from HIV virus or as a result of anaemia.(3)





Fig OD AND OS FUNDUS PICTURES RESPECTIVELY

REFERENCES

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