CASE REPORT

EALES DISEASE

Mohammad Naeem Khan, Syed Shahmeer Raza, Shayan Qadir, Hana Rehman*, Amer Kamal Hussain, Muhammad Daniyal Nadeem, Farhan Ullah

Community Medicine Department, Khyber Medical College, Peshawar, *Eye Department, Khyber Teaching Hospital, Peshawar-Pakistan

Eales disease is an eponym after a British ophthalmologist Henry Eales**.** The aetiology behind Eales disease is ill-understood and stands controversial. Various systemic diseases associated with peripheral retinal revascularization and Retinal vasculitis could imitate the proliferative and inflammatory phases of Eales' disease, respectively. We present a case of a 30 years old female patient with Eales disease and discuss the clinical features, treatment plan and its outcome in our patient. Tuberculosis appears to be the cause of Eales disease but the relation is yet to be established and clinically proven. Steroid therapy is usually the main stay of treatment with tapering doses of systemic corticosteroids. Other interventions are vitrectomy, photocogulation or cryotherapy.

Keywords: Eales disease; Tuberculosis; Fundus Fluorescein Angiography; Retinal Vasculitis

J Ayub Med Coll Abbottabad 2016;28(4):816–7

INTRODUCTION

Eales disease is an eponym after a British ophthalmologist Henry Eales. He first described its clinical picture in 1880 as an idiopathic obliterative vasculopathy, primarily affecting the peripheral retina in adults. In his observations in seven male patients of ages 14–29 years, the common signs and symptoms were a history of headaches, epistaxis, and changes in peripheral circulation, chronic constipation and indigestion. Retinal changes included peripheral non-perfusion, neovascularization and perivascular phlebitis leading to vitreous hemorrhage.[1] Eales considered this as a form of vasomotor neuritis for five years but its association with retinal inflammation was later explained by Wardsworth in 1887.[2]

The aetiology behind Eales disease is ill-understood and stands controversial. Various systemic diseases associated with peripheral retinal revascularization and Retinal vasculitis could imitate the proliferative and inflammatory phases of Eales' disease, respectively. Several systemic disorders have been reported to be associated with Eales disease but this has not been proven by large series. However, studies have shown the implication of Tuberculosis in Eales disease, directly or indirectly.3

We present a case of a 30 years old female patient with Eales disease and discuss the clinical features, treatment plan and its outcome in our patient.

CASE REPORT

A 30 years old woman presented to the Ophthalmology department of Khyber Teaching Hospital with chief complaints of sudden painless decrease in vision in the right eye for the last 10 years. There were episodes of sudden blackouts in the affected eye followed by spontaneous improvement in vision. She had no systemic disorders like hypertension, diabetes, cardiovascular disease or chronic obstructive pulmonary disease.

Her best corrected visual acuity was 6/6 in the left eye and 6/60 in the right eye with no improvement on pinhole. Examination of the right eye showed signs of vitreous haemorrhage. Laboratory tests revealed an elevated ESR (25 mm/hour) and CRP (7.97 mg/L). A Tuberculin Skin test was positive but there were no signs of active disease on chest X ray.

Pulmonology department was consulted and the patient was started on anti-tuberculosis regimen for nine months along with Pyridoxine supplementation. She was also placed on oral 5 mg Prednisolone for 1 month.

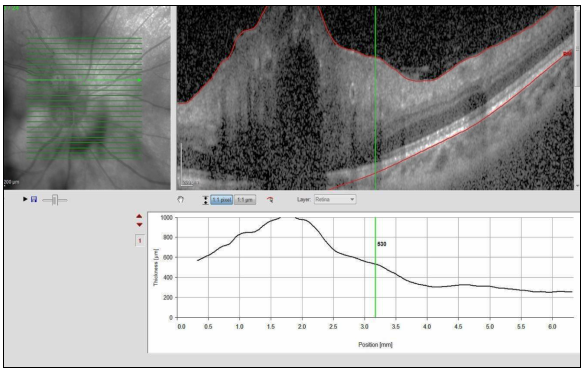

Figure-1: An OCT with Extended Depth Imaging was performed which showed (no retinal pigment epithelium or photoreceptors seen upon OCT. More than 1000 µm height of lesion. Vitreous traction can be seen superiorly

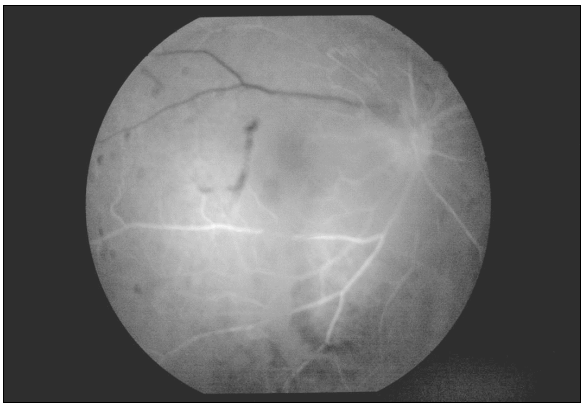

Figure-2: A fundus fluorescein angiography (FFA) was performed which revealed areas of capillary non-perfusion, significantly bleeding retinal veins with late extravasations of dye from areas of perivasculitis in the right eye. The Affected eye has a hazy view due to vitreal hemorrhage. Delayed filling of the vessels is seen. The left eye was normal

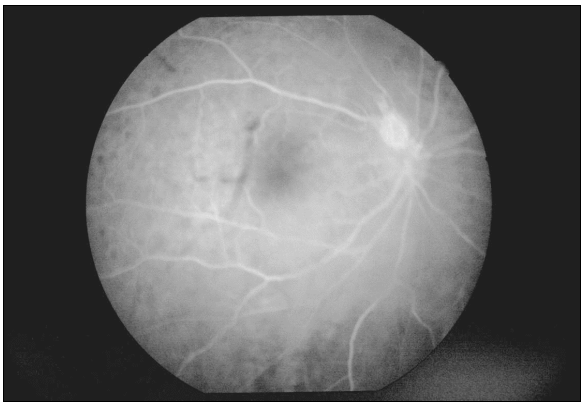

Figure-3: A 40 mg triamcinolone acetonide sub-Tenon's capsule injection was given on the right side. An FFA on follow up showed improved perfusion of the occluded vessels. The image shows no leakage of vessels. The patient is on 10 tablets of steroids currently.

DISCUSSION

The case was a rare complication of a common infectious disease. The pathogenesis of the disease is poorly understood but studies done in the Indian subcontinent during the last decade demonstrate 88-kDa protein in the serum & vitreous in the patients to be responsible for Eales disease.[4]

Tuberculosis appears to be the cause of Eales disease but the relation is yet to be established and clinically proven. "A research group in Madras, India, that 11 of 23 patients with Eales disease tested positive for the M. tuberculosis genome on nested PCR analysis of the epiretinal membrane, compared with 3 of 27 subjects in a control group".[5]

Steroid therapy is usually the main stay of treatment with tapering doses of systemic corticosteroids. Other interventions are vitrectomy, photocogulation or cryotherapy. Hence we have reported a case of Eales disease with recurrent haemorrhages and presented with neurological manifestations and deficits, the disease and the neurological deficits resolved fully after treatment with corticosteroids. Perivascular inflammation is greatly controlled by intravitreal steroids which improves vascular perfusion. The physician of the modern world should be aware of this complication of tuberculosis as well as treatment options as the migration and international travel has increased many folds in recent times.

REFERENCES

1. Eales H. Retinal haemorrhage associated with epistaxis and constipation. Brim Med Rev 1880;9:262.
2. Wardsworth. Recurrent retinal haemorrhage followed by the development of blood vessels in the vitreous. Ophthalmic Rev 1887;6:289.
3. Das T, Pathengay A, Hussain N, Biswas J. Eales' disease: diagnosis and management. Eye (lond) 2010;24(3):472–82.
4. Sulochana KN, Rajesh M, Ramakrishnan S. Purification and characterization of a novel 88 kDa protein from serum and vitreous of patients with Eales' disease. Exp Eye Res 2001;73(4):547–55.
5. Dastur DK, Singhal BS. Eales' disease with neurological involvement. Part 2. Pathology and pathogenesis. J Neurol Sci 1976;27(3):323–45.

Received: 22 January, 2016	*Revised: 7April, 2016*	*Accepted: 29 April, 2016*

Address for Correspondence:

Mohammad Naeem Khan, Associate Professor, Community Medicine Department, Khyber Medical College, Peshawar-Pakistan
Cell: +92 300 5901841
Email: eaglebook@hotmail.com