ORIGINAL ARTICLE

PARAFOVEAL TELANGIECTASIA: AN OBSERVATIONAL STUDY

Somashekar P. Biradar¹, Shilpa S. Biradar², Sahay³, Ashwini⁴, Mythri⁵

HOW TO CITE THIS ARTICLE:

Somashekar P. Biradar, Shilpa S. Biradar, Sahay, Ashwini, Mythri. "Parafoveal Telangiectasia: Parafoveal Telangiectasia: An Observational Study". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 14, February 16; Page: 2396-2398, DOI: 10.14260/jemds/2015/344

ABSTRACT: BACKGROUND:¹ parafoveal telangiectasia is a retinal micro vascular anomaly involving 360° of parafoveal capillary network. **AIM:** To investigate that parafoveal telangiectasia may have an association with diabetes and abnormal glucose tolerance. **MATERIAL AND METHODS:** In a retrospective study of 40 cases of angiographically confirmed PFT were analysed Each patient underwent complete ophthalmologic examination. **RESULT:** There were 19 males and 21 females in the age range of 37 to 77 years. Bilateral disease in 38 cases, 26 (54%) out of 40 are diabetics. 4 had abnormal glucose tolerance. **CONCLUSION:** Bilateral PFT have an association with diabetes and abnormal glucose tolerance, Patients with Bilateral PFT should undergo Fasting blood glucose tests and glucose tolerance test

KEYWORDS: Para foveal telangiectasia (PFT). Glucose tolerance test, Diabetics, Angiography.

INTRODUCTION:¹ Parafoveal telangiectasia is a retinal microvascular anomaly involving as much as 360° of parafoveal capillary network. The changes take the form of dilated kinked microvascular channels, micro – aneurysms and capillary non-perfusion. Lipid and serous exudation, cystoid macular edema, and subretinal neovascularisation are occasional sequale.

AIM: To investigate the possibility that parafoveal telangiectasia may have an association with diabetes / abnormal glucose tolerance. Also to know the epidemiology and natural history of parafoveal telangiectasia.

METHODS: In a retrospective analysis of 40 cases of angiographically confirmed PFT were analysed. Each patient underwent a complete ophthalmologic examination and reviewed at regular intervals.² The examination included, snellen's visual acuity, pupillary reaction, Amslers grid, color vision, slit lamp examination, tonometry, biomicroscopy, colour photographs and fluorescein angiography.

Systemic examination was done by the physician attached to the institute. Each one of them were tested for fasting and postprandial blood glucose levels.³

Abnormal glucose level was judged to be present when fasting glucose was ≥ 140 mg % and postprandial values ≥ 200 mg %

RESULT: There were 19 males and 21 females in the age range of 37 to 77 years. The follow-up ranged from 3 months to 11 years, In 38 the disease was bilateral at presentation. 26(54%) out of 40 were diabetic at presentation, 4 non diabetics had an abnormal glucose tolerance in subsequent visit. Visual deterioration occurred only in 2(5%) of them. The rest remained stable.

44(10%) out of 40 developed choroidal neovascular membrane in one of the eyes which responded to transpupillary thermotherapy. 5 out of 6 patients had hypertension associated with diabetes. A multivariate analysis was done for patients who had diabetes and PFT and compared with same parameters in non-diabetics and was found to be not significant statistically.

ORIGINAL ARTICLE

DISCUSSION:³ Gass and Oyakawa presented a large series of patients with idiopathic PFT dividing them into three groups. 95% of our patients belong to the type II A (acquired bilateral parafoveal telangiectasia) the non-exudative type.

The average age of patients with bilateral disease in Gass's series was 51 years (ours 57 years). Both the patients with unilateral disease were of 62 years of age at presentation and were diabetic. The age range is higher in our series than the Gass series for the unilateral disease.

Millary et al. (AJO 102:363-370 Sep.1986) have described an association of PFT with abnormal glucose tolerance. They observed abnormal glucose tolerance twice as common in case of bilateral parafoveal telangiectasia.⁵

³Green et al (Retina 19; 332 – 335, 1999) described the clinical and histopathological features of parafoveal telangiectasia in a patient who underwent orbital exenteration for squamous cell carcinoma.² on light and electron microscopic study revealed retina capillary changes similar to those observed in diabetes and prediabetic state, although the patient had no history of diabetes mellitus.

The Preceding observations causes one to speculate on the relationship of two diseases of diabetes and parafoveal telangiectasia. We found 75% incidence of diabetes / abnormal glucose tolerance in bilateral PFT.

³Choroidal neovascular membrane (CNV) which occurred secondary to PFT is a known complication and is associated with marked vision in⁴ cases who developed CNV. There has been no recurrence of CNV so far.

CONCLUSION: Bilateral parafoveal telangiectasia occurs in middle age and there is no sex predilection.⁵ Bilateral PFT may have an association with diabetes / abnormal glucose tolerance. Diabetes is a common disease and is a cause for microvascular abnormalities. Abnormal glucose tolerance occurs with increasing frequency in individuals more than 60 years. Patients with PFT especially elderly ones and those with bilateral disease should undergo fasting blood glucose test and GTT.

There is initial drop in vision, which remains stable without intervention until choroidal neovascularisation develops. Choroidal neovascular membranes respond to TTT (Transpupillary thermotherapy).

REFERENCES:

1. Yannuzzi. L.A., Gitter, K.A., and Schatz, H: The Macula. A comprehensive Text and Atlas. Baltimore, Williams and Wilkins, 1979, pp. 118-126.
2. Gass, J, D., and Oyakawa, T: Idiopathic juxta-foveal telangiectasia. Arch. Ophthalmol. 100:769, 1982.
3. Emity Y.Chew, MD: et al: Parafoveal Telangiectasia and Diabetic Retinopathy: Arch Ophthalmol 104:71-75, 1986.
4. Gass, J, D., and Oyakawa, T: Idiopathic juxta-foveal telangiectasia. Arch. Ophthalmol. 100:769, 1982.
5. Green, W. R, babak Eliassai-Rad: histopathologic study of presumed Parafoveal Telangiectasia. Retina 19: 332-335, 1999.

ORIGINAL ARTICLE

AUTHORS:

1. Somashekar P. Biradar
2. Shilpa S. Biradar
3. Sahay
4. Ashwini
5. Mythri

PARTICULARS OF CONTRIBUTORS:

1. Associate Professor, Department of Ophthalmology, Akash Institute of Medical Sciences, Devanahalli, Bangalore.
2. Consultant, Department of Ophthalmology, Akash Institute of Medical Sciences, Devanahalli, Bangalore.
3. Consultant, Department of Ophthalmology, Akash Institute of Medical Sciences, Devanahalli, Bangalore.

FINANCIAL OR OTHER

COMPETING INTERESTS: None

4. Computer Expert, Akash Institute of Medical Sciences, Devanahalli, Bangalore.
5. Computer Expert, Akash Institute of Medical Sciences, Devanahalli, Bangalore.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Somashekar P. Biradar,
Laxmi Nivas High Grouds,
No. 4/5 Crescent Road,
Bangalore-560001.
E-mail: drsomubiradar@yahoo.co.in

Date of Submission: 21/01/2015.
Date of Peer Review: 22/01/2015.
Date of Acceptance: 07/02/2015.
Date of Publishing: 14/02/2015.