Eye (2004) 18, 342–343

www.nature.com/eye

CORRESPONDENCE

Sir,

Retinal telangiectasia in association with macular hole formation

Retinal telangiectasia is a relatively rare, largely idiopathic condition that may result in haemorrhage, leakage, and lipid deposition. We present two patients with chronic peripheral telangiectasias who developed abnormal vitreomacular separation and consequent full-thickness macular hole formation.

Case report 1

A 50-year-old lady presented with a 2-month history of reduced central vision, distortion, and floaters in her right eye. Unaided visual acuities were right 6/12 and left 6/4. There were signs of right vitreomacular traction, partial posterior vitreous detachment, and vitreous haemorrhage. In the inferior periphery, there was an area of telangiectasia with features of chronic intraretinal and subretinal exudation, and retinal pigment epithelial atrophy. This was confirmed on fundus fluorescein angiography (Figure 1a and b). Examination of the left eye was unremarkable.

After 3 years, right central vision had deteriorated to 6/24 unaided and her distortion had increased. There was a right localised tractional retinal detachment along the superior-temporal arcade, a vitreoretinal band, and a full-thickness macular hole, confirmed on optical coherence tomography.

Case report 2

A 53-year-old lady presented with a 2-month history of reduced central vision and distortion in her right eye. Her visual acuities were right 6/60 and left 6/6 with glasses. There was a right partial posterior vitreous detachment, macular striae, and a full-thickness macular hole. In the temporal periphery, there was retinal telangiectasia with an underlying exudative retinal detachment, demarcated by a line of exudates. The left fundus had a normal macula, no posterior detachment and a smaller area of retinal telangiectasia without exudates in the temporal periphery. Optical coherence tomography scans were consistent with a right full-thickness macular hole.

After 21 months, the vision remained stable with a right partial posterior detachment and the right fundus showed an additional vitreoretinal band. Repeat optical coherence tomography showed an additional marked band of increased signal density extending from the inferior edge of the fovea on the right, compatible with inferior vitreoretinal macula traction (Figure 2).

Comment

Idiopathic age-related full-thickness macular holes usually develop in women in the seventh decade secondary to contraction of the prefoveolar vitreous cortex. Clinically, the vitreoretinal macular interface remains normal until vitreoretinal detachment. In patients with vitreoretinal macular traction syndrome, the partly detached vitreous remains attached to the centre of the macula. In cases with an unusual adherence of the vitreous to the centre of the fovea, a posterior vitreous detachment that begins in the extramacular region may result in a partial or full-thickness macula

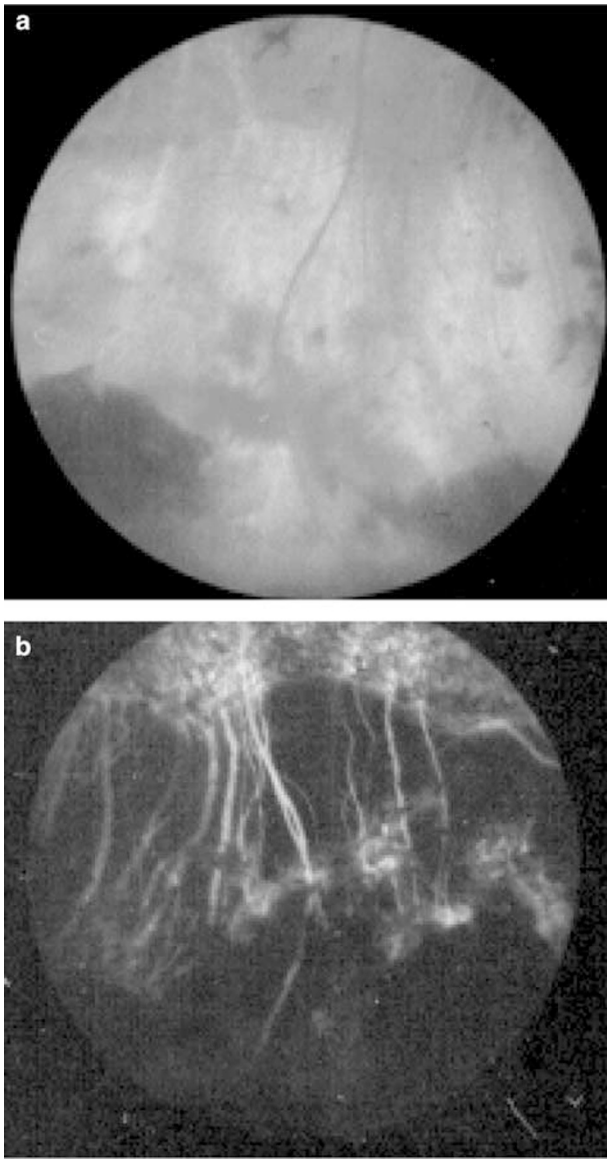

Figure 1 Fundus fluorescein angiography showing an area of telangiectasia with features of chronic intraretinal and subretinal exudation, and retinal pigment epithelial atrophy.

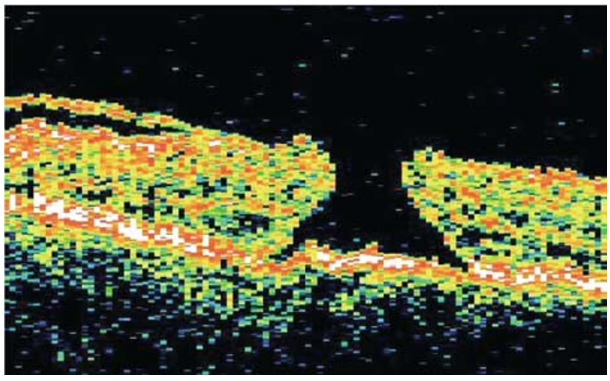

Figure 2 Repeat optical coherence tomography showed an additional marked band of increased signal density extending from the inferior edge of the fovea on the right, compatible with inferior vitreoretinal macula traction.

hole as it extends through the macula area; but this is an unusual mechanism for macula hole formation.[1]

Retinal telangiectasia is most frequently idiopathic. The term Coat's disease is usually reserved for idiopathic retinal telangiectasia and retinal exudation usually occurring unilaterally in young males.[2] However, retinal telangiectasia has been described in association with secondary exudative nonrhegmatogenous retinal detachment and retinoschisis,[3] rhegmatogenous retinal detachment,[4] and acquired after retinal surgery.[5]

The presence of a peripheral retinal telangiectasia and full-thickness macular hole may be coincidental, but the presence of both is rare. Both patients that we described had an abnormal posterior hyaloid evident by signs of vitreomacular traction and vitreoretinal bands. We hypothesise that the peripheral retinal telangiectasias with chronic exudation caused a change in the vitreous configuration, with secondary vitreomacular traction and full-thickness macular hole formation in each case. We suggest that there is a causative link between peripheral retinal telangiectasia and macular hole formation. Both patients declined surgery because of the uncertain prognosis and outcome with this hithero unrecognised association.

Acknowledgements

Proprietary interest: None. No grants or funds in support of case report. This paper has not been presented at any meeting.

References

1 Gass JDM In: L Craven (senior ed). *Vitreous Traction Maculopathies. Stereoscopic Atlas of Macular Diseases Diagnosis and Treatment*, 4th ed., Vol. 2. Mosby Publications: St Louis, MO, 63146, 1997, pp 914–916.
2 Shields JA, Shields CL, Honavar SG, Demirci H. Clinical variations and complications of Coats disease in 150 cases: the Sanford Gifford Memorial Lecture. *Am J Ophthalmol* 2001; **131**(5): 561–571.
3 Fox K. Retinal telangiectasia, retinoschisis and retinal detachment. *Annals of Ophthalmol* 1984; **16**(9): 830–834.
4 Kelley JS, Danzinger P. Rhegmatogenous retinal detachment with retinal telangiectasia. *Am J Ophthalmol* 1979; **88**(1): 52–54.
5 Gray RH, Gregor ZJ. Acquired peripheral retinal telangiectasia after retinal surgery. *Retina* 1994; **14**(1): 10–13.

PD Jaycock, D Thomas, R Zakir and DAH Laidlaw

Department of Ophthalmology
St Thomas' Hospital, Lambeth Palace Road
London SE1 7EH, UK

Correspondence: PD Jaycock
Tel: +44207 9289292 ext. 3020
Fax: 0207 9228157
E-mail: philipjaycock@hotmail.com

Eye (2004) **18,** 342–343. doi:10.1038/sj.eye.6700746
Published online 19 January 2004