

Comment

Both patients did not need any further injections after the first one, nor did they receive extensive retinal lasers as was the case in the article by Shah and Shah.¹ I agree, larger studies are needed to substantiate the results, but until then it is best to treat on a case by case basis.

Conflict of interest

The author declares no conflict of interest.

Reference

- Shah NJ, Shah UN. Long-term effect of early intervention with single intravitreal injection of bevacizumab followed by panretinal and macular grid photocoagulation in central retinal vein occlusion with macular oedema: a Pilot study. *Eye* 2011; **25**: 239–244.

B Patil

Waikato Hospital, Hamilton, New Zealand
E-mail: drbheemapatil@gmail.com

Eye (2011) **25**, 1516–1517; doi:10.1038/eye.2011.192;
published online 12 August 2011

Sir,
Neurosensory retinal detachment due to sunitinib treatment

Sunitinib is an oral inhibitor of various tyrosine kinases as well as vascular endothelial growth factor receptors 1 to 3.^{1,2} Sunitinib is used to treat metastatic renal cell carcinoma (RCC). Here we describe, for the first time, a neurosensory retinal detachment due to sunitinib treatment.

Case report

A 52-year-old Caucasian man with metastatic RCC reported decreasing visual acuity in both eyes. He had been taking sunitinib 50 mg per day for 3 weeks.

Examination revealed an uncorrected visual acuity of 6/12 on both eyes and best-corrected visual acuity of 6/6 (+2.0). A widespread serous detachment of the retina was present in both eyes (Figures 1a and b). Optical coherence tomography (OCT) revealed a bilateral neurosensory retinal detachment and a diffuse oedema (Figures 1c and d). The treatment with sunitinib was discontinued. Two weeks later, the patient presented with an uncorrected visual acuity of 6/6 on both eyes. OCT showed a complete bilateral resolution of the neurosensory retinal detachment and retinal oedema (Figures 1e and f).

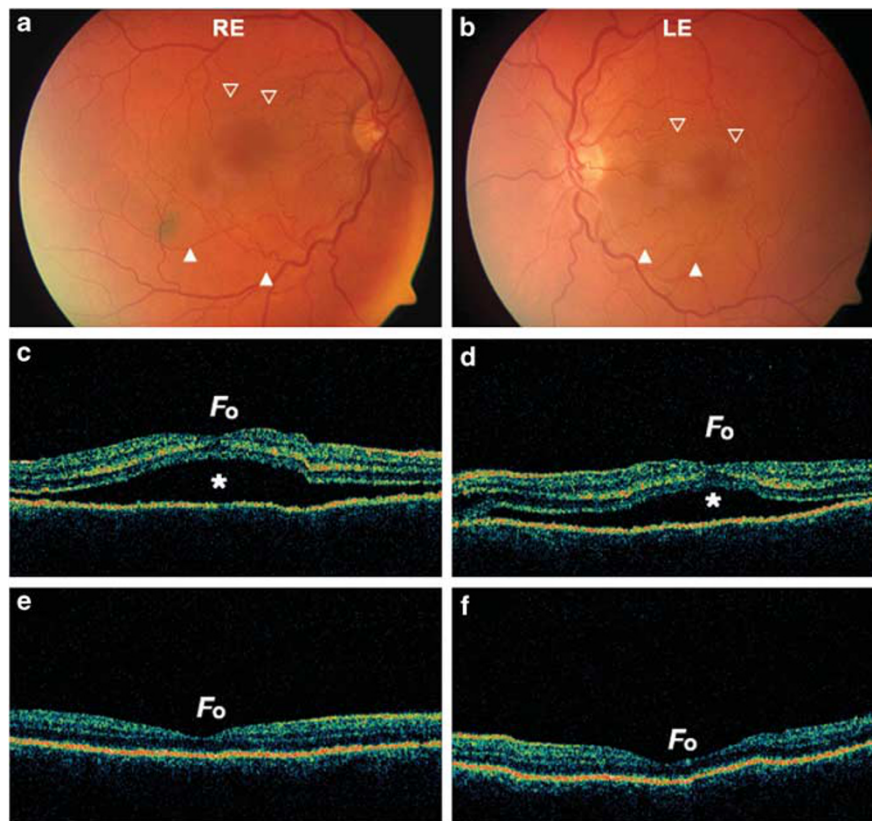


Figure 1 (a, b) Fundus photography at presentation, the extent of central serous retinopathy is marked, upper border (▽) and lower border (▲). (c, d) Optical coherence tomography reveals a bilateral neurosensory (*) detachment and a diffuse oedema of all retinal layers on both eyes. (e, f) Optical coherence tomography shows a complete resolution of the neurosensory detachment and retinal oedema 2 weeks after discontinuation of sunitinib on both eyes. Fo, Fovea; RE, right eye; LE, left eye.

Sunitinib was given in an intermittent schedule 4/2 (6-week cycle, 4 weeks on treatment, 2 weeks off treatment). The dose was reduced to 37.5 mg per day at the next treatment cycle. The patient developed the same clinical picture after re-initiating treatment. During the 2 weeks off period, a spontaneous regression of the serous detachment occurred again. Even after the reduction of sunitinib to 25 mg per day, the same 'yoyo-effect' was observed.

The patient was receiving anti-hypertensive treatment at that time that included a selective beta-blocker (bisoprolol), an angiotensin-converting enzyme inhibitor (ramipril) and an angiotensin II receptor antagonist (candesartan). None of them was discontinued at any time the patient received sunitinib. The patient did not take any corticosteroids. Blood pressure was well controlled (130/80 mm Hg).

Blood count, electrolytes, liver, and kidney function parameters were within normal range.

The underlying mechanisms of subretinal exudation are thought to include changes of the choroidal vascular permeability and choroidal vascular perfusion.^{3,4} Any medication, which can cause such changes, may be liable to induce serous retinal detachments. This is, to the best of our knowledge, the first report of a reversible neurosensory retinal detachment and retinal oedema due to sunitinib. Neovascular age-related macular degeneration and macular oedema due to vascular occlusion are the main indication for treatment with anti-VEGF in ophthalmology. Serous retinal detachment has not been reported as a side effect when using these substances. Moreover, neurosensory retinal detachment can even be treated with anti-VEGF.⁵ This might suggest that not the anti-VEGF-receptor effect of sunitinib was responsible for the neurosensory retinal detachment but other properties of its spectrum of action.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Rini BI. Vascular endothelial growth factor-targeted therapy in renal cell carcinoma: current status and future directions. *Clin Cancer Res* 2007; **13**: 1098–1106.
- 2 Wolter P, Schöffski P. Targeted therapies in the treatment of GIST: adverse events and maximising the benefits of sunitinib through proactive therapy management. *Acta Oncol* 2010; **49**: 13–23.
- 3 Wang M, Munch IC, Hasler PW, Prunte C, Larsen M. Central serous chorioretinopathy. *Acta Ophthalmol* 2008; **86**: 126–145.
- 4 Wolfensberger TJ, Tufail A. Systemic disorders associated with detachment of the neurosensory retina and retinal pigment epithelium. *Curr Opin Ophthalmol* 2000; **11**: 455–461.
- 5 Schaal KB, Hoeh AE, Scheuerle A, Schuett F, Dithmar S. Intravitreal bevacizumab for treatment of chronic central serous chorioretinopathy. *Eur J Ophthalmol* 2009; **19**: 613–617.

A Wegner¹ and R Khoramnia^{1,2}

¹Glaucoma Service, Department of Ophthalmology, Klinikum rechts der Isar, Technische Universität München, Munich, Germany

²Department of Ophthalmology, University of Heidelberg, Heidelberg, Germany
E-mail: awegner@yahoo.com

Eye (2011) **25**, 1517–1518; doi:10.1038/eye.2011.200;
published online 19 August 2011

Sir, Spectral domain optical coherence tomography findings of an iatrogenic retinal diamond deposit

Internal limiting membrane (ILM) peeling is an important step, ensuring the surgical success of macular hole surgery.¹ Various ILM peeling methods are available, one of which involves use of a diamond scraper.² By rubbing the retinal surface with the abrasive edge of the scraper, selective ILM peeling is achieved. However, there is a risk of shedding of diamond particles from the scraper tip to the retina during peeling. Gupta *et al*³ reported iatrogenic deposits of diamond particles

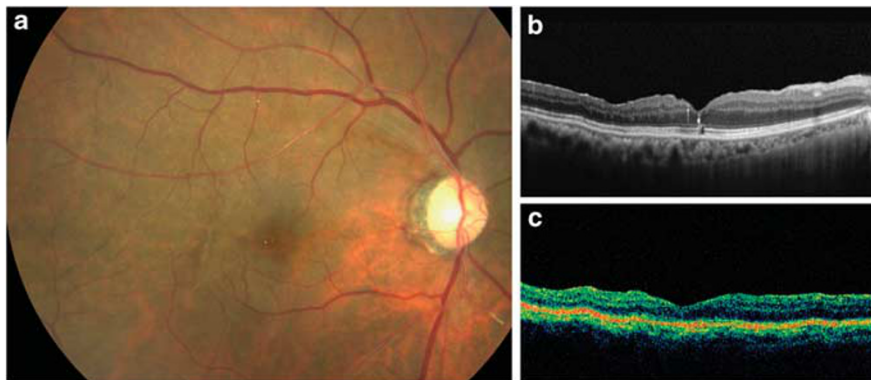


Figure 1 A postoperative fundus photograph shows two glistening diamond particles on the macula. (a) SD OCT reveals two highly reflective intraretinal diamond particles. (b) TD OCT could not detect the particles (c).