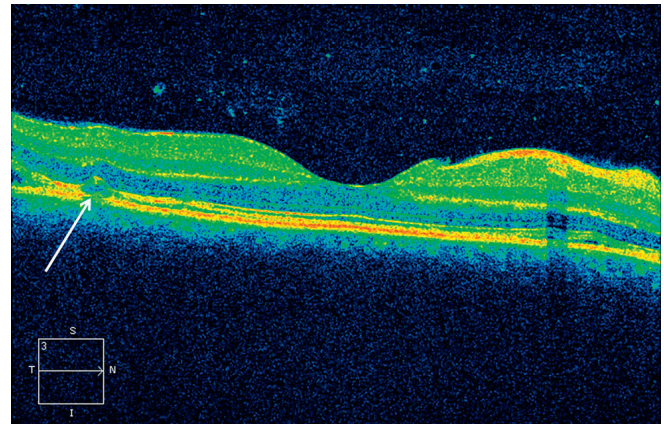


## Dalen Fuch's nodules and serous retinal detachment on optical coherence tomography in sympathetic ophthalmitis

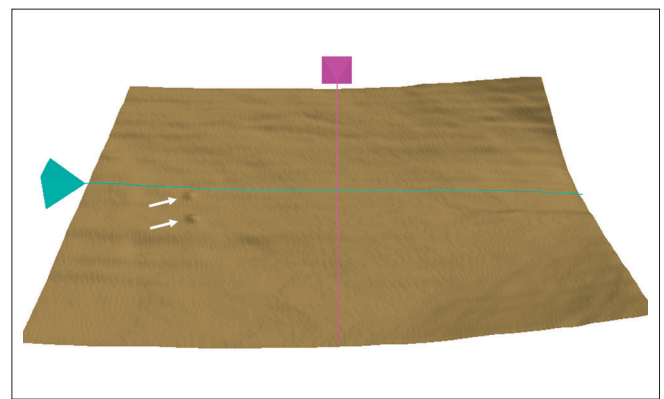
Dear Editor,

Sympathetic Ophthalmitis (SO) is a rare, diffuse granulomatous uveitis characterized by Dalen Fuchs (DF) nodules. We present a case of SO where DF nodules and serous retinal detachment have been documented by spectral domain optical coherence tomography (OCT). To the best of our knowledge there is only one published report of DF nodules imaged by OCT.<sup>[1]</sup> Till recently, the confirmation of DF nodules could only be done by Electron Microscopy of histopathological samples.

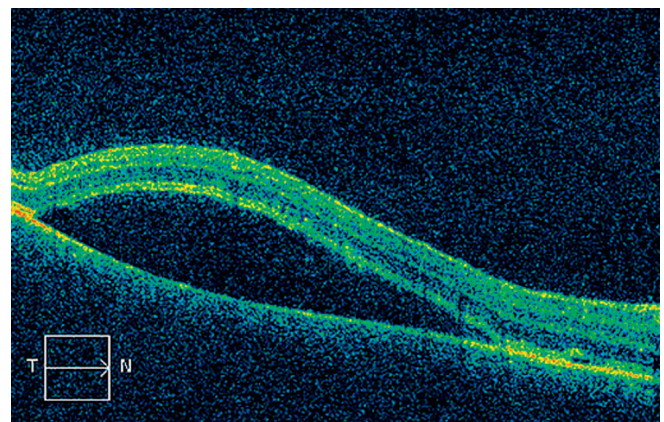
A 28-year-old man sustained a penetrating injury to his left eye for which he underwent surgical repair at a local hospital. Two weeks later he presented with pain, redness and blurring of vision in his right eye. On examination, the best corrected visual acuity (BCVA) of right eye was 6/12p, N10 while the left eye had no perception of light. Slit lamp examination of right eye showed circumcorneal congestion, multiple fine keratic precipitates with 2+ cells and flare and retrolental cells. Fundus examination revealed three small yellowish-white lesions suggestive of DF nodules, temporal to the fovea with an area of bullous elevation measuring 3 disc diameters seen supero-temporal to the fovea. Examination of the left eye showed a 2 mm sutured corneal wound with 3+ cells and flare, a 6 mm non-reactive pupil and early cataract. Vascularized tissue was seen in the retrolental area and there was no view of the fundus. Ultrasound B scan showed total retinal detachment with diffuse choroidal thickening in the left eye. OCT of right eye showed a localized small area of disorganized retinal pigment epithelium (RPE) with trans-retinal hyperactivity suggestive of DF nodule [Figs. 1 and 2]. The nodule appeared to have caused dome shaped elevation and destruction of the pigment epithelium corresponding to the third type of DF nodule described by Reynard *et al.*<sup>[2]</sup> Extensive disintegration of RPE and choriocapillaries have been described by Gallagher *et al.*<sup>[3]</sup> but in our case, the destruction was more focal. However, these earlier descriptions of DF nodules based on electron microscopy of tissue samples, might be at variance with the findings on OCT. There was also a large area of serous retinal detachment [Fig. 3] as seen in the case series of Gupta *et al.*<sup>[4]</sup> temporal to



**Figure 1:** Optical coherence tomography of the right eye showing Dalen Fuchs Nodule (arrow)



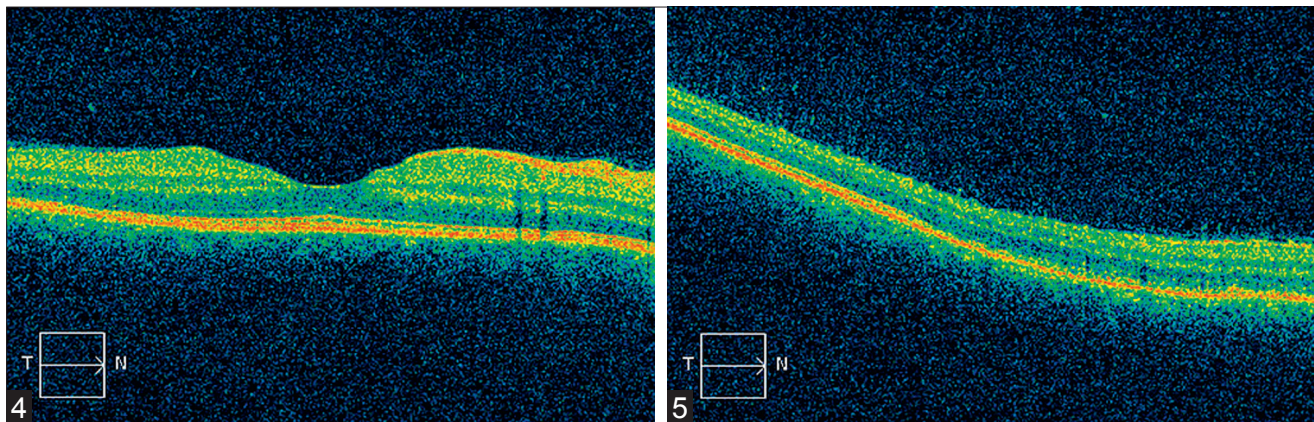
**Figure 2:** Optical coherence tomography of right eye: Retinal pigment epithelial surface map showing dome shaped elevations corresponding to the area of the Dalen Fuchs nodule (arrows)



**Figure 3:** Optical coherence tomography of the right eye showing serous retinal detachment

the macula causing disruption of the normal photoreceptor layer. Intra ocular pressures measured 14 and 4 mmHg in the right and left eyes respectively.

The patient was treated with topical steroids and cycloplegics in both eyes and with oral prednisolone 1 mg/kg which was tapered over a period of 2 months. After 2 weeks, his BCVA in the right eye was 6/6, N6 with a quiet anterior segment



**Figure 4 and 5:** Optical coherence tomography of right eye showing complete resolution of Dalen Fuchs nodule and serous retinal detachment

and fundus examination showed resolving DF nodules and serous detachments. Six weeks later, OCT showed complete resolution of DF nodules as well as the sub-retinal fluid with restoration of photoreceptors and inner and outer segments [Figs. 4 and 5].

SO is now rarely seen and so it is important for ophthalmologists to be aware of this dreaded complication. Early diagnosis and prompt treatment with systemic corticosteroids is absolutely necessary to prevent irreversible damage of the photoreceptor layer and to restore vision.<sup>[4]</sup> DF nodules can be clearly imaged by OCT which has emerged as an essential diagnostic tool in early detection, timely management and follow-up of patients with SO.<sup>[1]</sup>

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## References

1. Correnti AJ, Read RW, Kimble JA, Morris R. Imaging of Dalen-Fuchs Nodules in a Likely Case of Sympathetic Ophthalmia by Fluorescein Angiography and OCT. *Ophthalmic Surg Lasers Imaging* 2010;41:1-3.
2. Reynard M, Riffenburgh RS, Minckler DS. Morphological variation of Dalén-Fuchs nodules in sympathetic ophthalmia. *Br J Ophthalmol* 1985;69:197-201.
3. Gallagher MJ, Yilmaz T, Cervantes-Castañeda RA, Foster CS. The characteristic features of optical coherence tomography in posterior uveitis. *Br J Ophthalmol* 2007;91:1680-5.
4. Gupta V, Gupta A, Dogra MR, Singh I. Reversible retinal changes in the acute stage of sympathetic ophthalmia seen on spectral domain optical coherence tomography. *Int Ophthalmol* 2011;31:105-10.

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10.4103/0301-4738.113320