

Central Serous Chorioretinopathy

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Central serous retinopathy (CSCR) is a self-limiting disease with a fairly good prognosis; it commonly occurs during active part of life from 20 to 50 years of age. The disease is stress related and type-A personalities are more prone to it. Recurrences are more common. The condition is bilateral in 5%–35% of cases. Patients with CSCR complain of decreased or blurred vision, metamorphosia, micropsia, and paracentral scotomas.

Two types of leakages are well documented in literature on fluorescein angiography. Most common is inkblot leakage (93%) and second type is smokestack pattern (7%–20% cases).

Most leakage points are within a 1-mm area around fovea; but they can occur in an area greater than 3 mm from foveal avascular zone (FAZ) in 11.8% cases. In less than 10% cases leakage point is found in the fovea. Following case of CSCR manifested leakage of dye arising from under a blood vessel.

CASE STUDY

An Asian 48-years-old female who presented with diminished vision since 5 days in left eye with best-corrected visual acuity 6/60 (Figs 58.1 and 58.2).

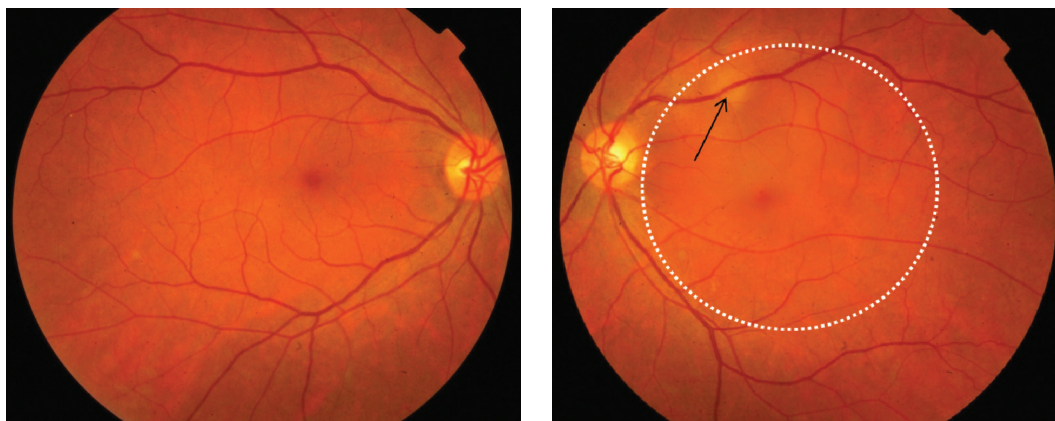


Fig. 58.1 Right-eye fundus was within normal limits. Fundus left eye showed round, well-delineated area of subsensory fluid in form of serous retinal detachment in macular region (white circle). Upper limit of serous detachment was crossing the superior arcade and showed a well-defined elevated grayish-white lesion just under superior arcade (black arrow). AQ1



Fig. 58.2 Right-eye OCT showed normal foveal contour, left-eye OCT showed serous retinal detachment with retinal thickness to 959 microns.

Eyes with acute central serous chorioretinopathy (CSC) have focal leakage at level of retinal pigment epithelium (RPE) seen on fluorescein angiography (FA). Indocyanine green angiography in eyes with CSC shows multiple areas of inner choroidal staining. Detailed optical coherence tomography (OCT) scan passing through point of leakage in FA gives additional information about morphologic changes at site of leakage. There have been reports with

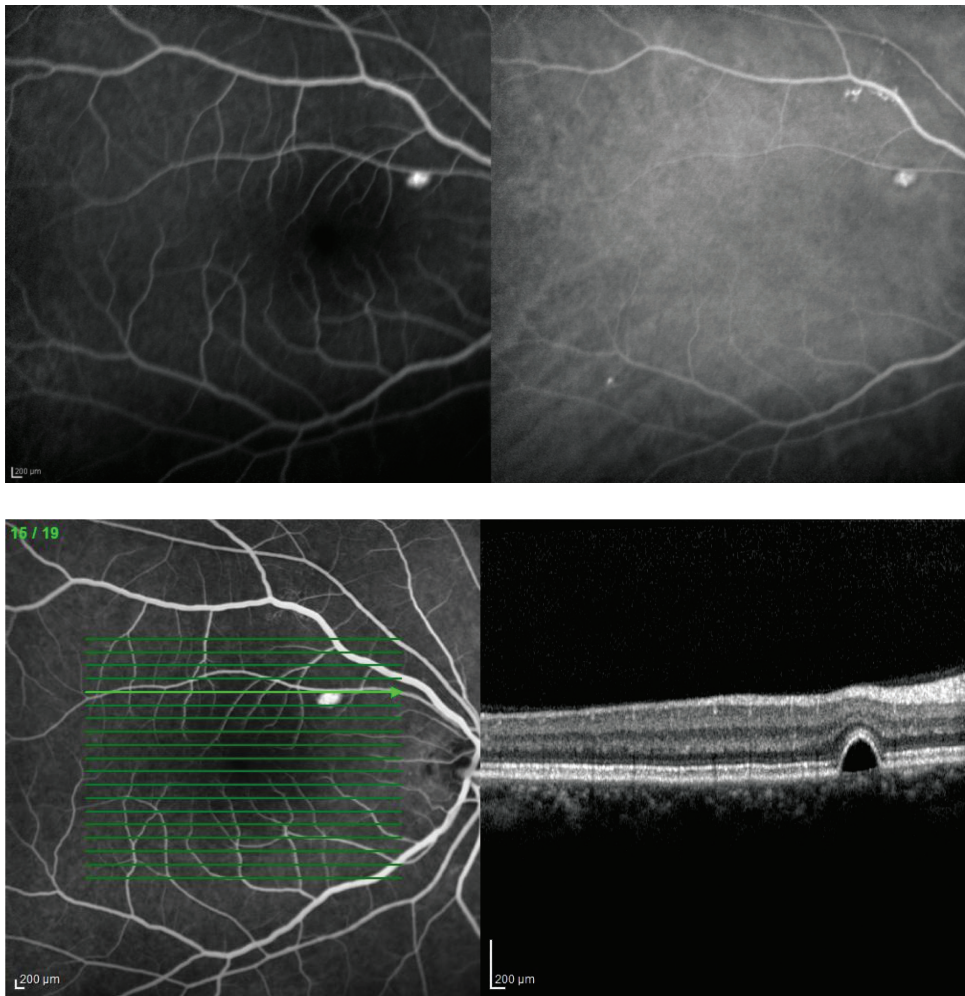


Fig. 58.3 Right eye combined fluorescein/indocyanine green angiogram FA-ICG showed leakage. SD-OCT at the leakage point showed pigment epithelial detachment (PED).

Fourier-domain OCT examinations showing RPE defect within PED at a leakage site through which fluid might pass from sub-RPE to subretinal area.

Our patient had leakage under blood vessel. The detailed OCT scan passing through leakage site showed PED with retinal dipping. Following laser treatment at leakage point CSR resolved with residual PED.

Although histopathologic studies of CSC are limited, spectral-domain optical coherence tomography (SD-OCT) showed precise morphologic changes in acute CSC. Detailed OCT scan through the leakage site showed presence of a minute RPE defect through which choroidal exudation leaks into the subretinal space. These changes may further help us to enhance our understanding of fluid dynamics in patients with CSC.

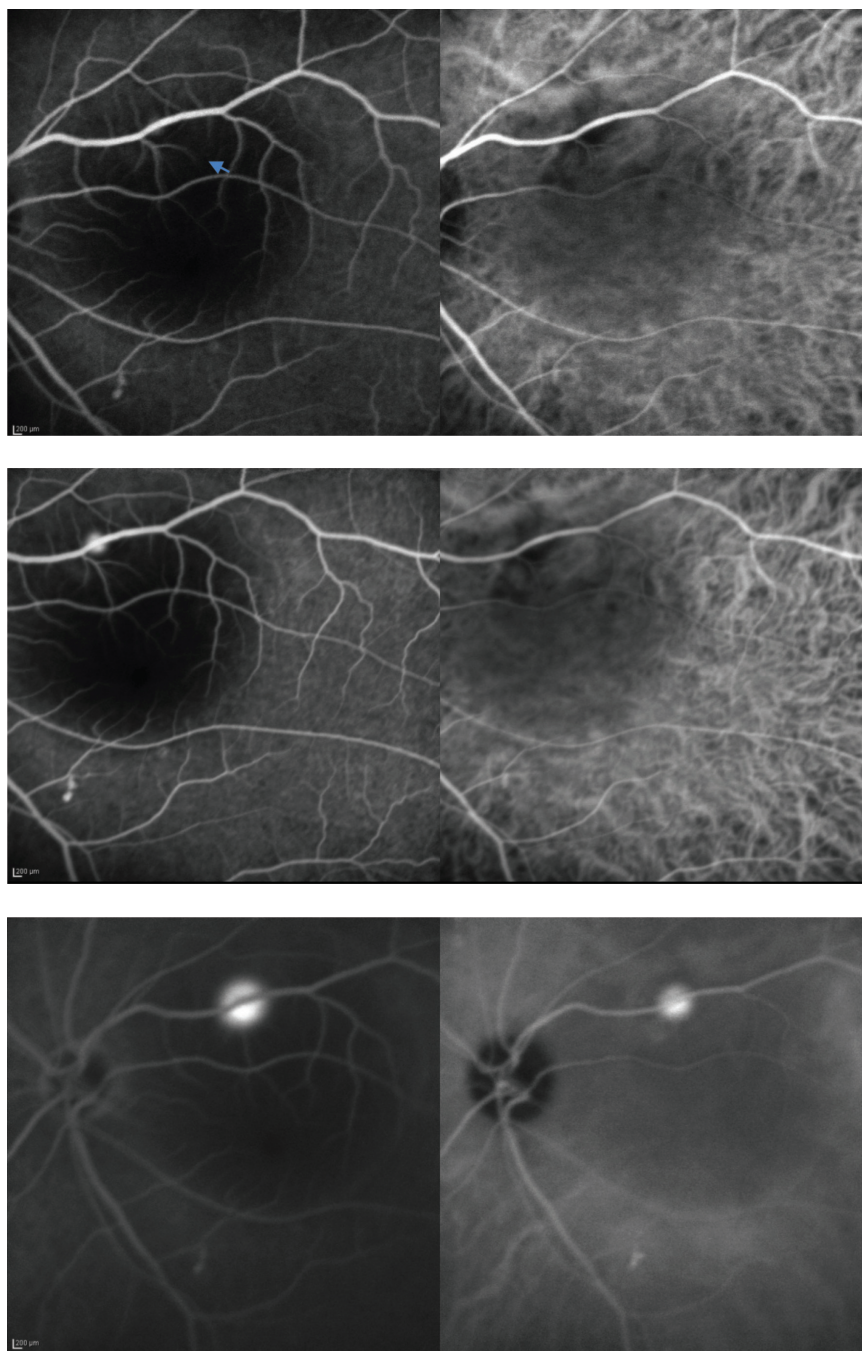
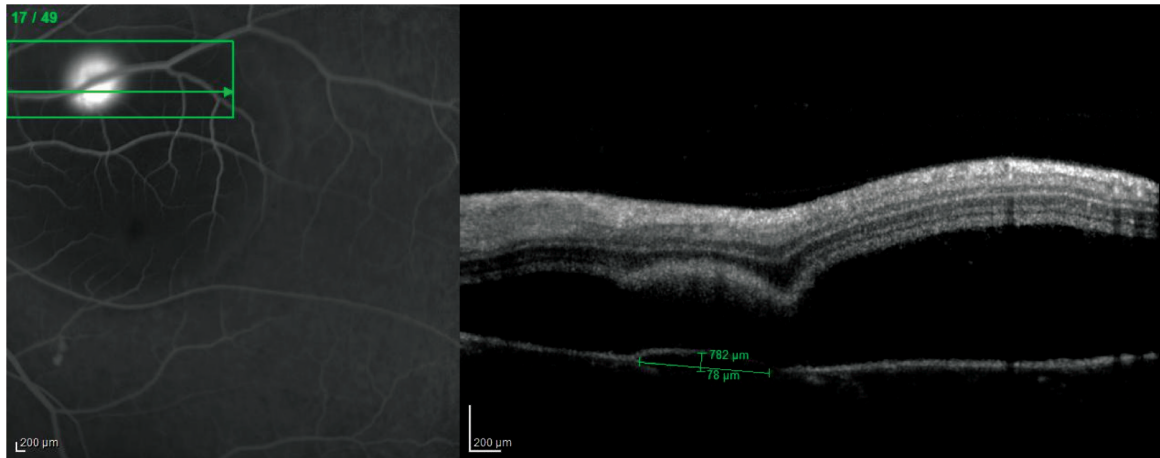
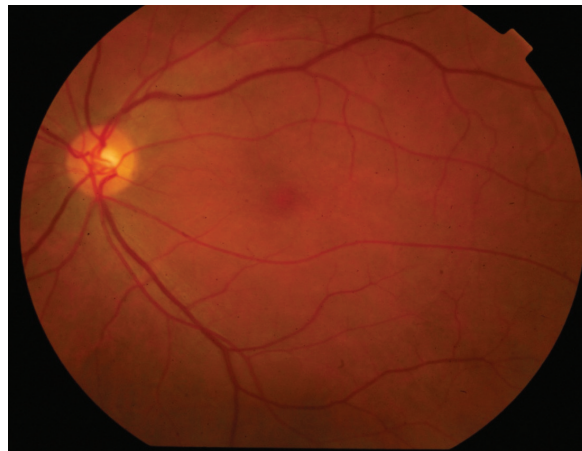


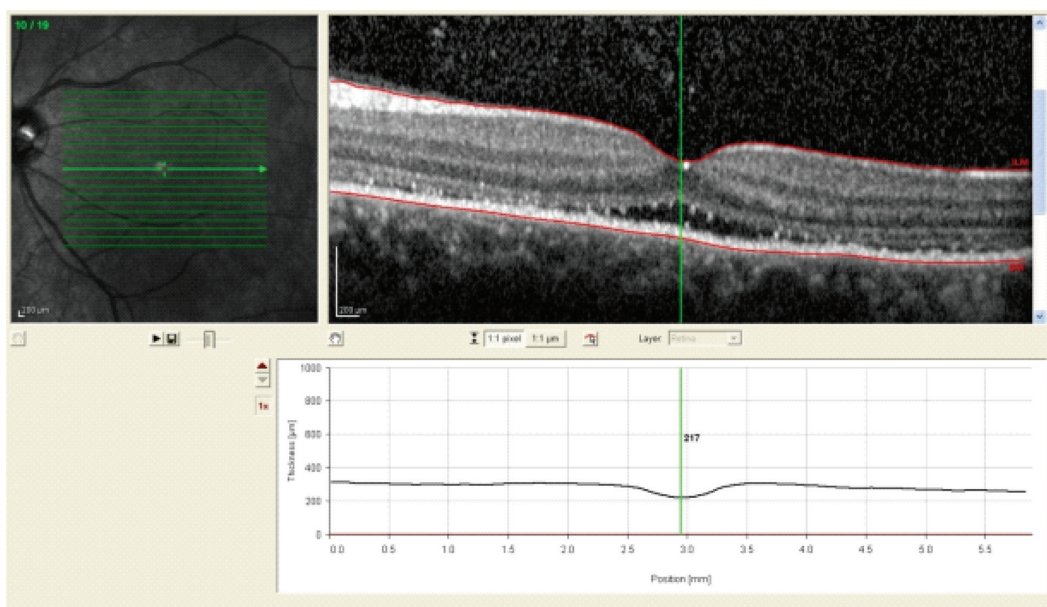
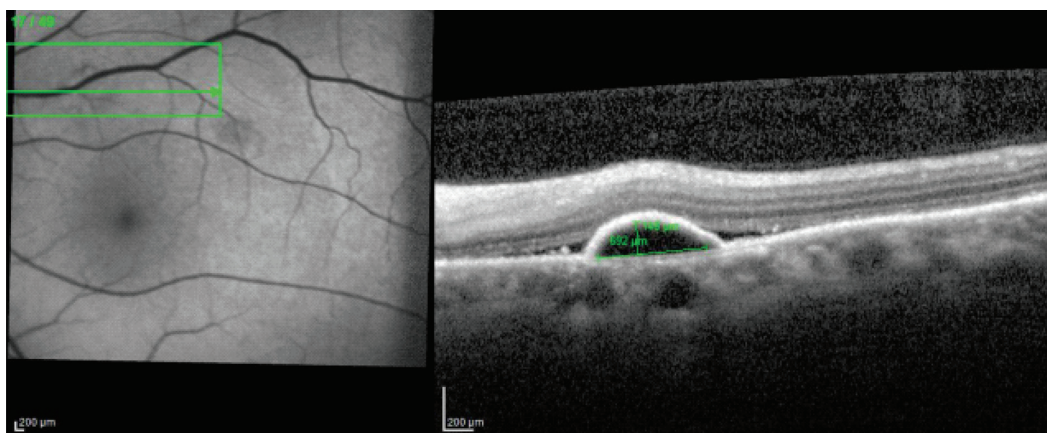
Fig. 58.4 Left-eye FA showed hyperfluorescent spot increasing in size and intensity beneath the superior arcade; AQ2 corresponding ICGA showed hypofluorescent area with late hyperfluorescence.




Simultaneous FA and OCT showed PED at leakage point with hyperreflectivity in subsensory space. We treated patient with focal laser in left eye; after 1 month he improved to visual acuity of 6/9.



Color photo of left eye after 1 month showing resolved CSR.



AQ3  Fig. 1 Post-treatment 1-month follow-up OCT at leakage point showed PED with resolution of subsensory fluid and reduction of thickness to 217 microns.

FURTHER READING

1. Balacco-gabrieli C, Asciano F, Reibaldi A, et al.: Central serous retinopathy. Etiopathogenetic and clinical considerations. *Ophthalmologica* 181:251–260, 1980.
2. Guyer DR, Yannuzzi LA, Slakter JS, et al.: Digital indocyanine green videoangiography of central serous chorioretinopathy. *Arch ophthalmol* 112:1057–62, 1994.
3. Piccolino FC, Borgia I: Central serous chorioretinopathy and indocyanine green angiography. *Retina* 14:231–42, 1994.
4. Yannuzzi LA, Shakin JL, Fisher YL, et al.: Peripheral retinal detachments and retinal pigment epithelial atrophic tracts secondary to central serous pigment epitheliopathy. *Ophthalmology* 91:1554–1572, 1984.

Author Queries

AQ1: Kindly check the inserted text for correctness.

AQ2: Please provide citations for Figure 58.3 and 58.4.

AQ3: Kindly provide the expansion of PED, Please check the Figure no.