Posterior polar annular choroidal dystrophy

Jignesh Manshibhai Gala, Raja Narayanan

Retina, LV Prasad Eye Institute, Hyderabad, Telangana, India

Correspondence to
Dr Raja Narayanan, narayanan@lvpei.org, dr_narayanan@hotmail.com

JMG and RN contributed equally.

Accepted 13 September 2019

DESCRIPTION

A 55-year-old female housewife presented with floaters in both eyes. The patient had no significant medical history and was not on any medications, and reported no known drug allergies. The patient had no significant family history. History of night blindness was noted. Fifteen years back, the patient underwent refractive corrective surgery for high myopia. On ocular examination, her best corrected distant visual acuity in the right eye was 20/25 and in the left eye was 20/30 with near visual acuity of 6/6 in each eye. Her external examination which included facial symmetry, external face, head posture, ocular position and ocular alignment was normal. Pupil and anterior segment examination were unremarkable. Goldmann applanation readings were 14 mm Hg in the right eye and 12 mm Hg in the left eye. Ophthalmoscopic examination through dilated pupil revealed clear media in each eye.

Fundus examination of each eye showed peripapillary chorioretinal atrophy extending to involve temporal vascular arcade forming an annular pattern and sparing fovea. The area of atrophy extended nasal to the disc in both eyes. Atrophy was more extensive in the right eye compared with the left eye. The disc was healthy and there was no arterial attenuation or no bony spicules. Peripheral fundus examination was unremarkable (figure 1A and B).

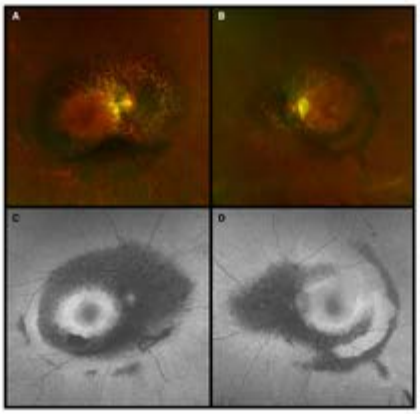

Figure 1 The posterior pole of each eye showed chorioretinal atrophy along vascular arcade in an annular pattern with sparing of the fovea (A and B). The area of atrophy was more nasal to disc compared with temporal to disc. Image (A) of the right eye showed extensive involvement than the left eye in image (B). Autofluorescence (Optos, Marlborough, Massachusetts, USA) showed loss of autofluorescence in the area of chorioretinal atrophy with hyperautofluorescence in the primacular area (C and D). The annular pattern was complete in the right eye and incomplete in the left eye which shows the asymmetric nature of the disease.

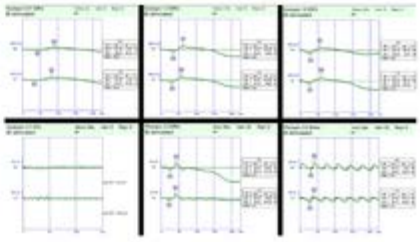

Figure 2 Electroretinography (Metrovision, Pérenchies, France) of both eyes showed a reduction in scotopic and photopic a-wave and b-wave and a significant reduction in 30 Hz flicker response with delayed implicit time.

Autofluorescence (Optos, Marlborough, Massachusetts, USA) image of each eye showed loss of autofluorescence along with chorioretinal atrophy. There was a perifoveal hyperautofluorescence in both eyes (figure 1C and D).

Electroretinogram (Metrovision, Pérenchies, France) of each eye showed a reduction in scotopic and photopic a-wave and b-wave and reduction in 30 Hz flicker response and oscillatory potentials with delayed implicit time (figure 2).

Humphrey visual field 30-2 of showed generalised depressed points, more in the pericentral area in both eyes (figure 3).

Swept source optical coherence tomography (Triton, Topcon, Tokyo, Japan) image of each eye showed normal fovea contour with normal outer and inner retinal structures. However, there was loss of architecture in the area of annular chorioretinal atrophy. Choroidal thinning was noted in each eye (figure 4).

Optical coherence tomography angiography (OCTA) showed normal superficial capillary plexus

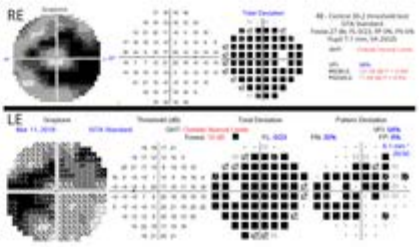

Figure 3 Humphrey visual field 30-2 of the right eye (A) and left eye (B) shows generalised depressed points, more in pericentral area.

To cite: Gala JM, Narayanan R. *BMJ Case Rep* 2019;**12**:e230495. doi:10.1136/bcr-2019-230495