

A Tale of Hypertensive Retinopathy with Choroidopathy and Neuropathy in A Young Patient: A Sign of End Stage Renal Disease

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Abstract

A 35 year old male patient presented with defective vision in the left eye associated with severe headache for past one week. On evaluation, the best corrected visual acuity of right eye (OD) was 20/20 and left eye (OS) was 20/40. Fundus evaluation revealed features suggestive of hypertensive retinopathy, choroidopathy and neuropathy. His blood pressure was 210/140 mm of Hg. Furthermore, on referral to Nephrologist, the patient was diagnosed with renal hypertension and was started on dialysis. Ophthalmic evaluation helped in diagnosing this life-threatening systemic condition; and the possibility of choroidal lesions, though less recognised have important implications in end organ damage.

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A 35-year-old male patient presented with defective vision in the left eye (OS) associated with severe headache for past one week. On evaluation, the best corrected visual acuity (BCVA) of the right eye (OD) was 20/20 and left eye (OS) was 20/40. Fundus evaluation revealed bilateral disc oedema, arteriolar narrowing, cotton wool spots, flame-shaped haemorrhages, multiple pigmentary epithelial detachments (PED) and exudative retinal detachment (RD) (Figure 1). His blood pressure was 210/140 mm of Hg. Furthermore, the patient was diagnosed with end stage renal failure due to renal hypertension and was started on

dialysis. An ophthalmic evaluation may help diagnose life-threatening systemic conditions as seen in this case.¹ They occur as a result of an acute hypertensive crisis, especially in young adults. It may present as focal choroidal infarcts seen as black spots surrounded by yellow haloes commonly known as Elschnig spots. Malignant hypertension causes undue stress on the choriocapillaris resulting in fibrinoid necrosis of the arterioles, and non-perfusion of the choriocapillaris due to the contraction of the flexible vessels.² Clinically this presents as Siegrist streaks which are flecks arranged linearly along the vessels. Non-perfusion

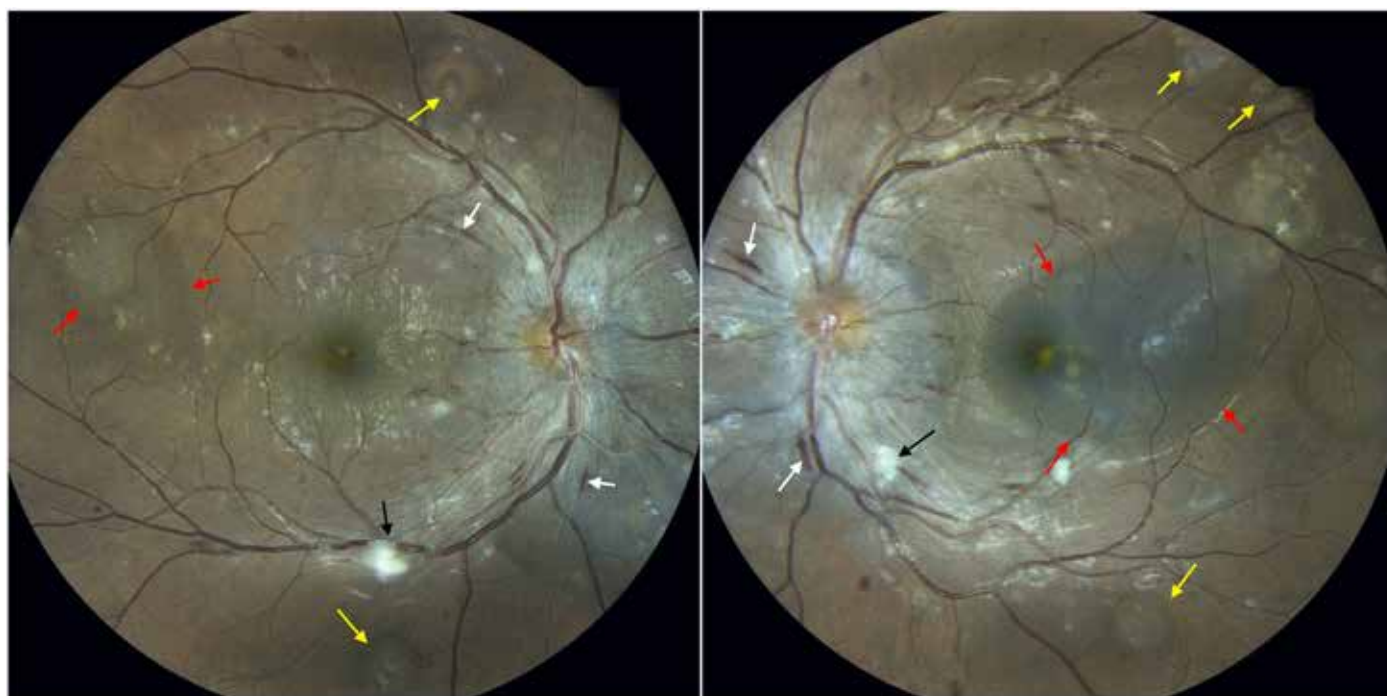


Figure 1: Colour fundus photograph of OD and OS eye showing bilateral disc oedema, arteriolar narrowing, cotton wool spots (black arrow), flame shapes haemorrhages (white arrows), multiple PEDs (yellow arrows) and exudative retinal detachments (red arrows).

of choriocapillaris alters the retinal pigment epithelium (RPE) and can weaken its pump function which can cause a serous RD.³ Ophthalmologists should keep in mind the possibility of reno-vascular hypertension in young patients with hypertensive crises to get timely treatment.⁴ Choroidal lesions though less recognised have important implications in end-organ damage.⁵

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