hypergammaglobulinaemia leading to increase in the level of immune complex deposits in retinal vessels, which in turn leads to increase in serum viscosity.^{4,5} This diminishes retinal microperfusion and provokes formation of cotton wool spots. We suggest that in this case acting through similar mechanism, underlying hepatitis C viral infection may have modified diabetes-related microangiopathy resulting in primary presentation with multiple cotton wool spots.

The epidemiological link between diabetes mellitus and hepatitis C has been well reported and shows increased prevalence of diabetes mellitus (type II) in patients with hepatitis C infection and *vice versa*.¹⁻³ Many theories have been put forward to explain this association, for example association of hepatitis C with other autoimmune diseases (Sjorgen syndrome, seronegative arthritis) and virus-mediated direct infection or immune-mediated liver damage leading to impaired glucose metabolism. On the other hand, diabetic patients have deranged metabolism and are tested more frequently.

The current literature suggests an epidemiological association between hepatitis C virus and diabetes mellitus but our case raises the possibility of modification of diabetic microangiopathy due to underlying hepatitis C virus infection and highlights the possible clinical association between the two conditions. We believe that clinicians should be aware of this interesting possibility.

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Sir, Optical coherence tomography of fundus findings in type II mesangiocapillary glomerulonephritis

Ocular involvement in type II mesangiocapillary glomerulonephritis (MCGN) has been well described in literature.¹⁻⁴ It is characterized by the presence of electron dense deposits in the choriocapillaris and the Bruch's membrane.^{1,2} Clinically, these deposits are seen as yellow discrete drusen-like lesions with atrophy of retinal pigment epithelium (RPE). These patients usually have no visual symptoms. However, visual loss may occur infrequently as a result of development of a choroidal neovascular membrane or central serous chorioretinopathy.^{3,4}

We report optical coherence tomography (OCT) findings in a case of type II MCGN who presented with mild visual loss in one eye.

Case report

A 32-year-old male presented to the retina services of our centre with complaints of mild blurring of vision in the left eye for past 1 month. The best-corrected visual acuity was 6/9 in right eye and 6/12 in the left eye. The patient was a known case of type II MCGN diagnosed 15 years back. Slit-lamp examination revealed normal anterior segment, bilaterally. Fundus examination showed mild arteriolar narrowing, normal optic discs with whitish-yellow nodular retinal elevations throughout the retina in both eyes (Figure 1a and b). Fundus fluorescein angiography demonstrated multiple, small, well-defined point like hyperfluorescent spots dispersed throughout the retina, interspersed with areas of window defects in both eyes (Figure 1c and d). There was a small irregular area of fluorescein pooling in the left eye.

OCT was performed. The line scans through macular area revealed widespread RPE-choriocapillary complex affection; there were multiple areas of RPE irregularities, excrescences and elevation (Figure 2a). The area under most of these RPE elevations had point-like signals of moderate and high reflectivity, whereas at some places it was optically clear suggesting presence of multiple small serous RPE elevations. Left eye revealed a large

Figure 1 Fundus photograph showing drusen-like deposits throughout the retina in (a) right eye; (b) left eye; (c and d) fundus fluorescein angiography showing multiple hyperfluorescent spots corresponding to the white spots with area of pooling in the left eye.

dome-shaped RPE detachment in the immediate submacular area (Figure 2b). Additionally, there was a thin slit-like optically clear area just adjacent to the large RPE detachment suggestive of subretinal fluid collection.

Discussion

Mesangiocapillary glomerulonephritis is an infrequently encountered renal disease that affects young adults. Ocular involvement in type II MCGN has been described in past reports.^{1–5} Previous studies suggest that there is great anatomic similarity between the glomerulus and the choriocapillaris; the basement membrane and the Bruch's membrane; the epithelium and the RPE.^{1,2} Thus, involvement of these structures in type II MCGN takes similar form.^{1,2} The histological renal involvement in type II MCGN is characterized by presence of amorphous, electron dense deposits in the subepithelial space.² Similar deposits have been reported to be present

throughout the inner collagenous layer of the Bruch's membrane, and in some areas these may show appearance of focal drusen-like nodules.^{2,3} Ulbig *et al*⁴ suggested that alterations in the Bruch's membrane may cause focal breakdown of blood–retinal barrier allowing leakage of fluid into the subretinal space, thus leading to the development of central serous chorioretinopathy. OCT in the present case demonstrated diffuse involvement of RPE–choriocapillary complex, multiple area of RPE irregularities, and excrescences with high reflectivity deposits underneath, probably representing the electron dense deposits. Similar OCT findings have also been reported by Batioglu *et al*.⁵ In addition, OCT in the present case showed bilateral multiple small RPE detachments and thin strip of subretinal serous fluid collection in the left eye, which were clinically undetectable.

The characteristic fundus picture in type II MCGN is of diffuse, bilateral symmetrical yellow drusen-like lesions at the posterior pole.^{1–4} These patients may have a

Figure 2 OCT scan showing RPE irregularities, modulations and small RPE detachments in (a) right; (b) left eye. Left eye also showing a large central RPE detachment, along with subretinal fluid collection in left eye.

widespread fundus involvement with no ocular symptoms. However, visual loss may occur due to development of central serous chorioretinopathy or a choroidal neovascular membrane in advanced cases.^{3,4} Our patient had bilateral whitish yellow drusen like deposits scattered throughout the retina. He complained of diminution of vision in left eye. FFA did not reveal any features suggestive of choroidal neovascular membrane or central serous chorioretinopathy. OCT demonstrated a large RPE detachment with some subneurosensory fluid collection, which suggested a possibility of resolving central serous chorioretinopathy as no active leakage site could be demonstrated on FFA.

This report not only highlights the OCT findings of ocular association in this rare systemic condition, which seem to correlate well with histopathological changes in these eyes but also suggests that OCT may serve as a useful tool in evaluating the patients especially those with visual involvement. OCT may help in differentiating between RPE detachment, choroidal neovascular membrane, and central serous chorioretinopathy. In addition, OCT being noninvasive could be used more frequently for follow-up of these patients with end-stage renal involvement where frequent FFA or indocyanine green fundus angiography are not desirable.

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Sir, Exudative retinal detachment after photodynamic therapy: a case report in an Asian patient

Randomized clinical trials have shown that photodynamic therapy (PDT) with verteporfin is associated with few ocular or systemic adverse events.^{1–4} However, severe visual loss within 7 days after treatment has been reported in 4.4% from the Verteporfin in Photodynamic Therapy Study Group (VIP).^{2,5} A few cases were reported from an Asian patient. We report one case of marked visual acuity deterioration within a few days after PDT.

Case report

A 51-year-old Thai female patient presented with blurred vision in the left eye for 1 year. Her visual acuity was 20/20 in the right eye and 20/200 in the left. The fundus examination showed central subretinal fluid,