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INTERESTING CASE OF ALCOHOLIC LIVER DISEASE

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Abstract
A unique case report of a 62 year old alcoholic liver disease presenting with retinopathy which is multifocal, central and bilateral is discussed in this case report. Ophthalmic examination revealed, symmetrical, yellowish raised lesions which were raised and was of variable size present throughout the fundus. OCT and auto fluorescence tests helped in confirming the diagnosis of multifocal central serous retinopathy. This case reports helps in highlighting the relationship between multifocal, central retinopathy and alcoholic liver disease and the pathogenesis of multifocal bilateral retinopathy.

Keywords: Alcohol, Retinopathy, Auto fluorescence.

Introduction

Central retinopathy is a neurosensory condition where the retina gets detached which is accompanied by detachment of retinal epithelium. It's usually idiopathic and the age at which this disease is usually diagnosed varies from 2nd decade to 8th decade [1,2]. Cirrhosis can lead to pathologies in eyes such as dry eyes with no tears, vitamin A deficiency. In almost 32% percent of population, retinopathies with haemorrhages are found in patients with hepatitis C [3]. But retinopathies can also be seen in other conditions such as cirrhosis due to the loss of the synthetic function of the liver. Let's discuss a unique case of multifocal retinopathy due to alcohol induced liver disease in a 62 year old male.

Case Report

A 62 years old male patient who is a known case of alcoholic liver disease came with complaints of occasional flashes and floaters, hence was referred to ophthalmologist due to complaints of yellow lesions in both eyes. He is a known case of systemic hypertension on treatment and was recently diagnosed with type 2 diabetes mellitus and on nutritional therapy. History of earlier admission due to binge alcohol drinking was present.

Examination

On examination patient had distended abdomen, flanks were full and umbilicus was pushed down and flushed. Detailed examination revealed hepatomegaly, that is lower margin of liver was palpable three finger breadth below the coastal margin with no splenomegaly.

Course

Patient was admitted with the above-mentioned complaints. USG abdomen showed cirrhosis. CT scan was done to confirm the diagnosis if liver cirrhosis. Patient also had oesophageal varices denoting the presence of the portal vein hypertension. There were no primary lesions in the liver and hence HCC was ruled out. Investigations revealed elevated liver function tests, with elevated plasma viscosity of 1.82mPa/s. Ophthalmic examination was found normal in both eyes. Fundus examination showed yellow lessions which was translucent and of different sizes throughout the fundi. The diagnosis of multifocal neurosensory retinal detachment was made with the help of OCT and fundus auto fluorescence (Figure 1). Patient was managed conservatively and patient had a visual acuity of 6/6.

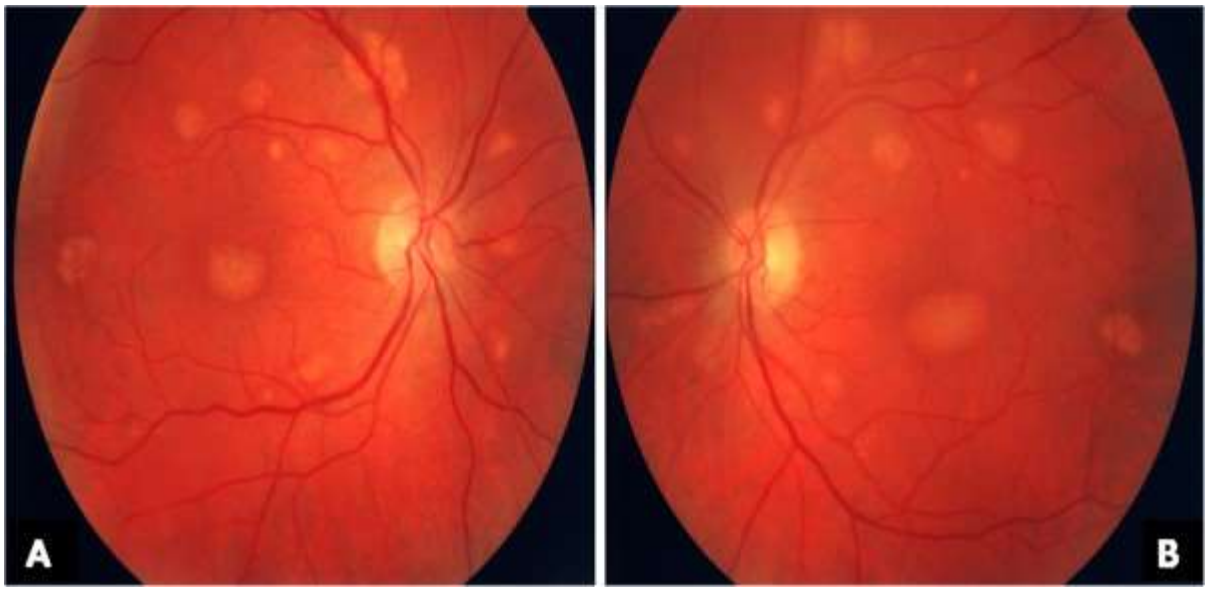

Figure 1: (A) and (B) Fundal images. Yellow lesions of different size found in both the fundus.

Discussion

We hypothesize that there could have been decreased production of blood protein due to the damaged liver in our patient; Choroidal vascular permeability could have increased due to the disturbance in fluid balance of the body. Certain inflammatory markers such as CRP, IL-6 could have altered the assembly of the blood brain barrier causing increase in the choroidal permeability of the vasculature, leading to CSR [4, 5]. The NO released causes disruption of the choroidal blood flow which is seen in relation with alcohol consumption, thus an additional theory to choroidal vascular permeability changes and CSR development. Liver cirrhosis is also associated with oxidative stress. Production of reactive oxygen species causes nitration of tyrosine residues, affecting trans astrocytic substrate transport and selectively disturb the permeability of blood brain barrier, may also damage outer retinal barrier.

Conclusion

This is a unique case presenting with multifocal central retinopathy related to alcohol induced liver disease. There was no history of any consumption of steroids, antihistamines, or antibiotics in the past. Thus multifocal central serous retinopathy must be considered as differential diagnosis when a patient who is a known case of alcoholic comes with visual disturbances.

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