Young alcoholic patient with acute vision loss: pancreatitis-related or a marker of underlying autoimmune disease

Rtika R Abraham,1 Mrinal Pahwa,2 Jagpal Singh Klair,3 Mohit Girotra4

Department of Geriatrics, University of Arkansas for Medical Sciences, Little Rock, Arkansas, USA
Department of Surgery, Sir Ganga Ram Hospital, New Delhi, India
Department of Internal Medicine, University of Arkansas for Medical Sciences, Little Rock, Arkansas, USA
Department of Gastroenterology, University of Arkansas for Medical Sciences, Little Rock, Arkansas, USA

Correspondence to Dr Jagpal Singh Klair, klairjagpal@yahoo.com

DESCRIPTION

Purtscher’s retinopathy (PR) was first described in 1910 as associated with trauma, and its association with acute pancreatitis was not described until late 1970s. A recent UK and Ireland survey by Agrawal and McKibbin1 found that acute pancreatitis is one of the most common causes of PR accounting for one-third of the cases. In PR, the typical ophthalmoscopic findings include: large infarcts in the retinal capillary bed known as Purtscher flecken, small retinal microinfarcts at the level of the nerve fibre layer known as cotton-wool spots and intraretinal haemorrhages confined to an area by the optic disc and macula (as seen in our patient, shown in figure 1). The pathophysiology of PR has not been fully elucidated. Evidence suggests that proteolytic enzymes released during acute pancreatitis activate the complement cascade forming C5a-induced leucocyte, platelet and fibrin aggregates that embolise to the retinal arterioles and choroid vessels subsequently damaging photoreceptors.2,3 Alternate theories suggest that it could be in part due to fat emboli secondary to pancreatic digestion of omental fat. Other conditions associated with PR include certain types of systemic vasculitides (such as scleroderma, systemic lupus erythematosus and dermatomyositis), lymphoproliferative disorders, bone marrow transplantation, valsalva manoeuvre and pancreatic adenocarcinoma.1 There is no treatment for PR, however, associated conditions if any should be treated. In patients with acute necrotising pancreatitis, the development of PR has been shown to be associated with poor prognosis and may precede multiple organ failure. Overall, the visual prognosis is guarded and initially compromised vision may improve over a period of months.

Learning points

▸ Acute pancreatitis is one of the most common causes of Purtscher’s retinopathy (PR) and shown to be associated with poor prognosis and may precede multiple organ failure.
▸ Typical ophthalmoscopic findings are pale optic discs, multiple cotton-wool spots and retinal and pre-retinal haemorrhages.
▸ Even though PR itself has no treatment, workup should be initiated to diagnose and treat associated conditions.

Competing interests None.
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REFERENCES


Figure 1 Pale optic discs, multiple cotton-wool spots and retinal and pre-retinal haemorrhages.