Purtscher’s-like Retinopathy - A Rare Complication of Acute Pancreatitis

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A 37 year old male, with a history of chronic alcohol consumption, presented at our emergency department with acute upper abdominal pain, nausea, vomiting and loss of visual acuity appearing over night, after alcohol and food abuse. He was a professional driver, non-smoker, who drank usually 500 ml beer or wine per day. His general condition was poor, with no fever, cold sweating, sinusus tachycardia (128 beats/min), high blood pressure (170/120 mmHg), abdominal bloating and diffuse abdominal pain at palpation. Laboratory data revealed leukocytosis, hyperamylasemia, hyperlipasemia, elevated AST, bilirubin, C reactive protein and serum glucose. Abdominal CT examination was suggestive for necrotic hemorrhagic acute pancreatitis with Balthazar score 8. Ophthalmologic examination revealed visual acuity of the right eye 0.05 and left eye 1/50. The pupillary reflex was normal. Ophthalmoscopy of both eyes showed cotton wool spots (ischaemic areas of nerve fibre layer), areas of retinal whitening with polygonal shape (capillary bed infarction) and retinal haemorrhages: flame shaped (superficial), dot and blot (deep retinal layers) and normal optic disc (Fig.1). Fluorescein angiography showed capillary leakage, nonperfusion of the small arterioles that surround the central macula and perivenous staining (Fig. 2). The diagnosis was Purtscher’s like retinopathy.

The first description of the association between acute pancreatitis and Purtscher’s like retinopathy was made in 1975 [1]. A small percentage of patients with acute pancreatitis (2%) may present retinal changes, including sudden loss of visual acuity [2]. The most accepted mechanism is leukoembolization which causes arterial occlusion and infarction of the microvascular bed. Other possible sources of emboli include fat from enzymatic digestion. Usually ophthalmological alterations appear in the first week from the onset [3]. In our patient, the visual disturbances were present from the beginning. Some authors recommend routine fundoscopy in patients with acute pancreatitis to detect retinal damage, since the development of retinal changes indicates a severe course of acute pancreatitis [4]. Spontaneous visual recovery of at least two Snellen lines occurs in half of the patients. There is no specific treatment for retinal damage [5]. Our patient demonstrated limited improvement of visual acuity due to macular involvement (central macular infarction), remaining dependent on support for moving.

In conclusion, Purtscher’s like retinopathy presents as sudden loss of vision. Diagnosis is made by ophthalmoscopy, revealing the typical retinal lesions. Eye prognosis is reserved. Fundus examination may be useful in all patients with severe acute pancreatitis.

References