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LETTER TO EDITOR

Purtscher's Retinopathy After Facial Trauma

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Dear Sir,

Purtscher's retinopathy (PR) is a retinal vasculopathy which presents with a visual deficit, after trauma to the chest or bone fractures. I report a case of unilateral PR after soft tissue injury of the face.

A 30-year-old man complained of blurred vision in the left eye, a day after a road traffic injury. He had deep abrasions on his face, along with bilateral black eyes and pain in the left elbow. X-ray skull, chest, and arm excluded any bony injury. He did not suffer any systemic trauma. His past medical history was unremarkable. His best corrected visual acuity was 6/6 and 6/12 in the right and left eyes, respectively. His pupils were reactive, without an afferent pupillary defect. Slit lamp examination was unremarkable, except for bilateral sub-conjunctival haemorrhage. Dilated funduscopy revealed peri-papillary cotton wool spots and superficial retinal haemorrhages along with macular oedema in the left eye, [Table/Fig 1] while the right eye was within normal limits.

A clinical diagnosis of unilateral PR was made. There was no clinical evidence of fat embolism syndrome. Complete blood count and serum amylase were normal. The patient was observed, and three weeks later, uncorrected vision in the left eye was 6/6

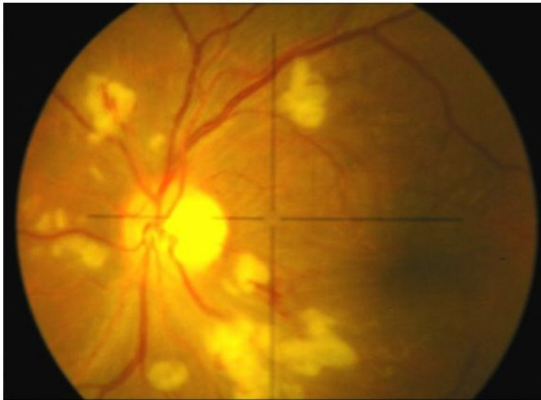
partial, and retinal white patches and macular oedema were resolving.

Purtscher's retinopathy was first described in 1910 by Otmar Purtscher. Since then, in addition to various type of trauma, a type of similar fundus picture has been described in acute pancreatitis, fat embolism syndrome, renal failure, and child birth and connective tissue disorders. Fractures of long bones and chest compression injuries are the classical cause of PR. Purtscher's retinopathy due to non-traumatic aetiology, is sometimes described as Purtscher's like retinopathy.

Although it is mostly bilateral, it can also be unilateral, and can present with variable visual deficit. Visual deficit may be accompanied by central, paracentral or arcuate scotoma. Peripapillary Purtscher's fleckens, cotton wool spots, superficial retinal haemorrhages, optic disc and/or macular oedema are the retinal changes observed in typical PR. Multiple, discrete, polygonal, variable size patches of retinal whitening between arterioles and venules, known as Purtscher's fleckens, are characteristic of PR. The diagnosis is made on the basis of clinical findings.

Spontaneous vision improvement has been reported in a majority of patients. At present, no definite guidelines exist on how

to treat PR. High dose intravenous corticosteroids have been tried, but there is little evidence to support any advantage over simple observation. PR has been reported after the fracture of mandible or maxilla, but to the best of my knowledge, unilateral PR after soft tissue injury of face has not been reported so far. In conclusion, the person who has had traumatic injuries of face and has developed visual symptoms, should undergo a dilated fundus examination in order to identify signs of PR. Although treatment may not be successful, these findings may have medico-legal implications.



[[Table/Fig.1] Purtscher's retinopathy after facial trauma

Reference

- [1] Agarwal A, McKibbin MA. Purtscher's and purtscher-like retinopathies A review. *Surv ophthalmol.* 2006;51:129-136
- [2] Stassen LF, Goel R, Moos KF. Purtscher's retinopathy: an unusual association with a complicated malar fracture. *Br J Oral Maxillofac Surg.* 1989;27:296-300.
- [3] Peled M, Rubin A, Pikkell J, Laufer D. Purtscher's retinopathy associated with mandibular fracture: a case report. *J Trauma.* 1996;40:141-3.