

VITREO-RETINA

Purtscher's Retinopathy Following Road Traffic Accident: A Case Report

Martha-Mary Ekong Udoh¹, Chineze Thelma Agweye^{1,2}, Bassey Archibong Etim^{1,2} and Dennis George Nkanga^{1,2}

¹Department of Ophthalmology, University of Calabar Teaching Hospital, Calabar, Cross River State, Nigeria.

²Department of Ophthalmology, University of Calabar, Calabar, Cross River State, Nigeria.

Corresponding author: M. E. Udoh, Email: drmmudoh@yahoo.com; +2348067929109

Introduction: Purtscher's retinopathy is a rare occlusive, vasculopathy which occurs following trauma to the head, chest, long bone fractures^{1,4}. It is characterized by sudden visual loss of variable severity, intraretinal haemorrhages, Purtscher flecken and cotton wool spots.

Case Presentation: A 50-year-old female accountant, of Bette tribe, presented to our facility with a history of sudden bilateral painless loss of vision of 11 days duration following a Road Traffic Accident (RTA). Patient lost consciousness for about 10 minutes and regained consciousness spontaneously. She experienced severe chest and back ache following the RTA which warranted her admission in a private clinic. Visual loss was observed 2 days following the RTA. There was no associated flashes of light, metamorphopsia, micropsia or macropsia. Patient had no systemic illness.

Past ocular history was not contributory. There was no family history of blindness.

On examination, the presenting visual acuity was Hand Movement (HM) in the right eye and CF @ 1m in the left eye. There was no improvement with pinhole. Pupils were equal, regular, round, briskly reactive to light in both eyes. There was no relative afferent pupillary defect. Slit lamp examination of the anterior segment was unremarkable in both eyes. Intraocular pressures (IOP) were normal. Dilated funduscopy showed extensive intraretinal haemorrhages, cotton-wool spots and Purtscher's flecken as shown in the fundus photographs (Figures 1 & 2).

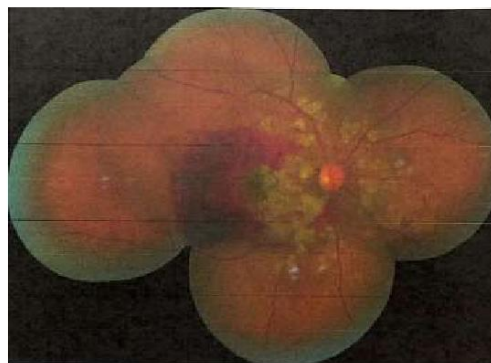


Figure 1: Fundus photograph of right eye



Figure 2: Fundus photograph of left eye

A diagnosis of Purtscher's retinopathy was made based on the history and clinical findings. She received intravitreal injection of 0.05mg in 0.5ml of ranibizumab in RE a day after presentation. A month later visual acuity had improved to 6/60 in both eyes with no improvement with pinhole. Patient went for job related program a month after presentation to another city and presented at a tertiary health facility where a diagnosis of bilateral burnt out sickle cell retinopathy (grade 5) with macula ischaemia was made and patient had bilateral panretinal laser photocoagulation.

Discussion: Incidence of Purtscher and Purtscher-like retinopathies is about 0.24 persons per million per year^{1,2}. Purtscher-like-retinopathy has a similar fundus appearance as Purtscher's Retinopathy but without a history of trauma and

has been associated with complement-activating conditions such as acute and chronic pancreatitis, renal failure, collagen vascular diseases, thrombotic thrombocytopenic purpura and HELLP (hemolysis, elevated liver enzymes, low platelet count) syndrome^{1,2,5} and following childbirth.^{2,6} The exact pathogenesis of Purtscher and Purtscher-like retinopathy is not completely understood. Postulated pathogenetic mechanisms include venous dilatation due to high intrathoracic pressure after chest compression, vasculitis secondary to lipase release after acute pancreatitis and vascular occlusion resulting from air, fat, leukocyte aggregates, platelets and fibrin.^{1,6} Visual prognosis in Purtscher's Retinopathy is variable and depends on underlying condition with spontaneous recovery of at least 2 snellen's lines seen in half of cases.²

Conclusion: Patients with visual loss following trauma to the head or chest should be referred to an ophthalmologist as soon as possible as this could be a pointer to Purtscher's retinopathy. The findings on the retina may normalize or improve with time and may pose a diagnostic challenge if the patient presents later in the course of the disease. Reporting of cases is useful to further strengthen available evidence.

References

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