Intraocular hemorrhage following thrombolysis for myocardial infarction

A 60-year-old non-hypertensive and non-diabetic male patient with a history of smoking for more than 25 years presented to the emergency room with complaints of the left-sided chest pain and shortness of breath for 7 h. His general physical examination was normal except mild pallor. His blood pressure was 120/82 with a pulse of 86/min. Electrocardiography revealed ST elevation which was suggestive of anterior wall myocardial infarction. The patient was thrombolysed with streptokinase 1.5 million units which resulted in a significant symptomatic resolution. After 14 h, the patient complained of the sudden painful loss of vision in the right eye. There was no history of trauma or ocular illness in the past.

Ocular examination of the right eye for visual acuity showed complete loss of perception of light with mild proptosis and subconjunctival hemorrhage (Fig. 1a). The pupil was slightly dilated and fundus was largely obscured. An urgent magnetic resonance imaging examination revealed deformed the right eye globe with hypointense areas in the vitreous chamber causing mass effect and anterior displacement of the lens on T2W axial images (Fig. 1b). These contents were iso- to hyperintense on T1W images suggestive of hemorrhage. Based on the history of recent thrombolytic therapy with no other history of trauma, hypertension, or ocular pathology, a diagnosis of intraocular hematoma secondary to thrombolytic therapy was made. The patient was managed conservatively with tablet acetazolamide 500 mg to reduce intraocular pressure (IOP) as he did not give consent for lateral canthotomy and orbital decompression.

Intraocular hematoma is a rare complication of thrombolytic therapy. However, it should be considered in any patient who experiences ocular symptoms post-thrombolysis [1,2]. Urgent decompression with lateral canthotomy has been done previously in these patients to prevent optic nerve compression and subsequent vision loss [3]. Risk factors predisposing for intraocular bleed are hypertension and macular degeneration, but our patient did not have any of them [4]. However, few studies have shown that diabetic retinopathy is not a contradiction to thrombolytic therapy in patients with myocardial infarction [5]. The incidence of such complications is decreasing with the advent of better thrombolytic agents and more patients taken up for primary percutaneous coronary intervention. On follow-up, the patient had normal IOP with complete loss of vision except for a slight perception of light at the periphery.

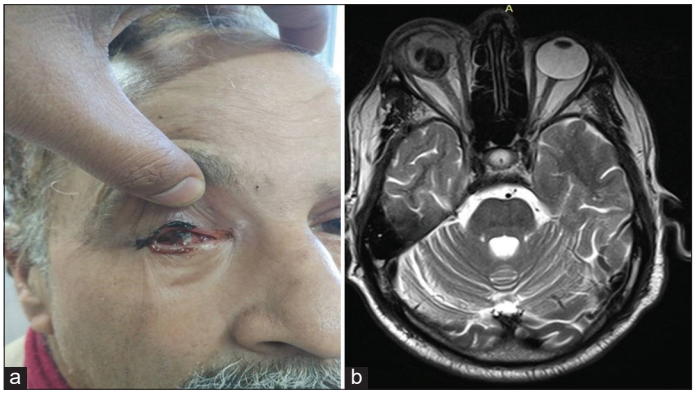

Figure 1: (a) Mild proptosis with subconjunctival hemorrhage; (b) deformed right eye globe with hypointense areas in vitreous chamber causing mass effect and anterior displacement of lens on T2w axial images

Lokesh Singh[1], Vikas Bhatia[2], Uma Debi[3]

From [1]Research Associate, [2]Assistant Professor, [3]Associate Professor, Department of Radio Diagnosis and Imaging, Post Graduate Institute of Medical Education and Research, Chandigarh, India

Correspondence to: Dr. Vikas Bhatia, Department of Radio Diagnosis and Imaging, Post Graduate Institute of Medical Education and Research, Chandigarh, India.
E-mail: drvikasbhatia@gmail.com

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