

Case Report

Spontaneous Expulsive Choroidal Hemorrhage

Rajesh S Joshi¹

An 80 year-old lady presented with sudden onset bleeding from her right eye. A through history did not reveal any trauma or previous ocular surgery. Other eye had central leucoma grade corneal opacity. She was blind by both eyes since last 20 years and was not under follow up with any ophthalmologist. On surgical exploration, it was found that contents were extruded out from the superior limbus in the form of iris, choroids and vitreous. There was no lens. Patient was taken to the operation theater and an evisceration was done. Eviscerated contents sent for histopathological study did not show any inflammatory signs or any malignant changes. A trivial trauma to the eye like rubbing can lead to the spontaneous expulsion of the contents of the globe in presence of old corneal disease.

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Key words : Expulsive choroidal hemorrhage.

Expulsive choroidal hemorrhage (ECH) is the most feared complication of ocular surgery. Reported incidence is 0.05-0.08% intra-operatively^{1,2}. It's rarely seen in absence of surgical procedure or trauma. It is seen due to sudden lowering of intra-ocular pressure during intra-ocular surgery. Reports have indicated that, it is related to cataract and glaucoma surgery, vitreous surgery, perforating and blunt injury to the globe. The incidence of non-surgical ECH is not known.

We report a case of sudden onset expulsive choroidal hemorrhage in a patient having no systemic problems but an old corneal opacity of unknown origin, suggesting that patient having compromised eye need to be followed carefully.

CASE REPORT

An 80-year-old lady presented with sudden onset bleeding from her right eye since last 8 hours. It was associated with severe pain in that eye. She did not have any history of trauma or any surgical procedure in that eye. She was diagnosed having corneal opacity in both the eyes since last 20 years. Records of previous ocular examination were not available with the patient. Patient's general condition was normal. She was non-diabetic and non-hypertensive. She was not using any drugs locally as well as systemically. There were no signs and symptoms of hemorrhage in any other parts of the body. Blood pressure was 110/70 mm of Hg. Haematological investigations were normal.

Examinations — On examination, both eyes had no perception of light. Right eye had active bleeding with ocular contents extruded out (Fig 1). Left eye had leucoma grade corneal opacity measuring 9x9 mm with thinning of peripheral cornea. No scleral thinning was seen. Intra-ocular pressure by air-puff tonometer was normal in left eye. On exploration of right eye, a perforation was seen in the

superior part of the cornea with uveal tissue prolapse. Scleral thinning was seen in the superior and inferior part of the sclera (Fig 2). A decision was taken to eviscerate the contents. A large hemorrhagic mass with intra-ocular tissues were removed through the corneal defect. Cultures for bacteria and fungi from the dissected tissue were negative. Histopathological examination did not show any inflammatory signs and malignant changes.



Fig 1 — Extruded contents of the globe with scleral thinning (arrow)

DISCUSSION

Ophir *et al* Classified supra choroidal hemorrhage (SCH) in two forms (a) the surgical type, which occur during or shortly after ocular surgical intervention and (b) the spontaneous type, which is extremely rare, associated with perforation of the cornea or the limbus³. Surgical type occurs in patients who are at risk during surgical intervention. The risk could be in the form of systemic conditions which are not under control like diabetes, hypertension, thrombocytopenic⁴.

Local conditions causing surgical expulsion choroidal hemorrhage

¹MS, DNB (Ophthalmol), Associate Professor, Department of Ophthalmology, Vasantrao Naik Medical College, Yavatmal 445 001 and Corresponding Author

are atherosclerosis, vascular diseases, glaucoma, corneal ulcer, staphylococcal globe, intra-ocular malignancy⁵. Our patients had old corneal opacity and the scleral staphyloma near the limbus on the superior and inferior side. There is still a debate on an initial event of the spontaneous expulsive choroidal hemorrhage. Some believe that hemorrhage in the ocular cavity as an initial event and some, sudden decompression of the globe in both surgical and non-surgical cases as an initial event⁶. The mechanism leading to expulsion choroidal hemorrhage in our case is unclear. The defect on the superior side of the cornea was 8-10 mm. We presume perforation of the cornea as an initial event followed by bleeding. The perforation could be because of trivial trauma to the eye like rubbing of the eye, which patient denies. This is likely to be, as bleeding from the eye started at night. There were no active inflammatory corneal signs. This is also supported by histopathology of eviscerated contents which did not show active inflammatory signs.

In reviewing the literature, glaucoma was proposed to be an initial event producing spontaneous expulsive choroidal hemorrhage^{6,7}. The mechanism of expulsive hemorrhage in these cases were thought to be a sudden decompression of the globe leading to anterior displacement of the retina and choroid then rupture of the posterior ciliary arteries. Chronic glaucoma causes bullous keratopathy that may become infected secondarily leading to corneal perforation. In our case patient had an old corneal opacity in both the eyes but it was not clear from the history and examination whether patient had an old glaucoma or corneal ulceration. Other eye had normal intra-ocular pressure on non-contact tonometer. One day prior to the bleeding patient did not have any complaints pertaining to the development of the corneal ulcer. Thus we think trivial trauma to the eye during the sleep initiated the event of the bleeding.

Case of spontaneous expulsive choroidal hemorrhage without an ocular surgery is rare. Expulsive choroidal hemorrhage occurring during the ocular surgical procedure is related to systemic factor like uncontrolled hypertension, diabetes and bleeding disorders. Best thing to prevent expulsive choroidal hemorrhage in these cases is to control them preoperatively. But spontaneous expulsive choroidal hemorrhage occurring in cases having corneal inflammatory diseases, chronic glaucoma is unpredictable. This case is presented to highlight the need to follow such cases carefully.

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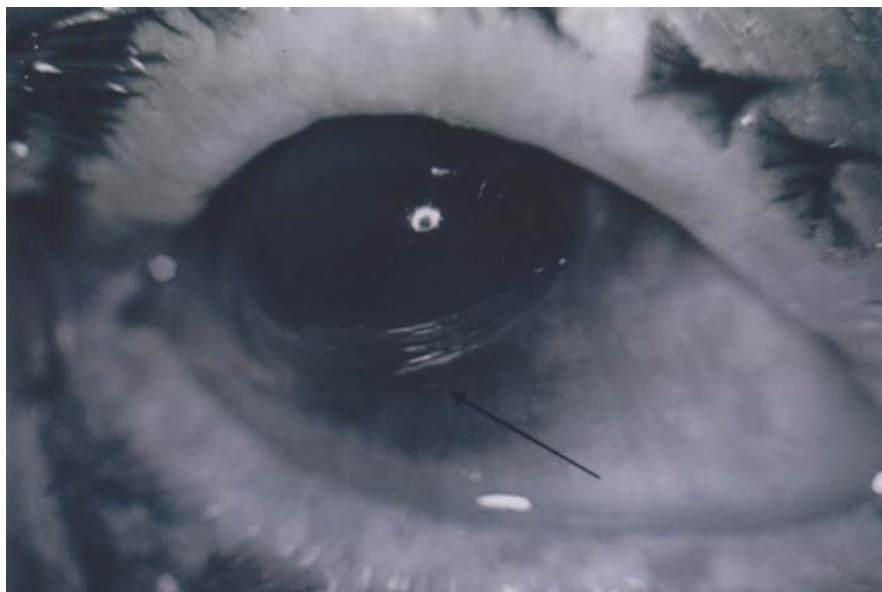


Fig 2 — Showing scleral thinning (arrow)

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