

## Globe Perforation during Retrobulbar Anesthesia: causes and management

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**Purpose:** To assess the risk factors resulting in ocular perforation during administration of retrobulbar anesthesia and subsequent management of this complication. **Methods:** A retrospective consecutive case study of seven patients who suffered from globe perforation during administration of retrobulbar anesthesia, six of whom were candidates for cataract surgery and one was for the repair of retinal detachment. **Results:** The causative factors predisposing to globe perforation evident from our study were superonasal gaze in six patients, pathological myopia in 3 patients, enhancement of retrobulbar anesthesia in one patient and retrobulbar block given by an anesthetist in 3 of the 7 patients. The consequence of globe perforation was retinal detachment in 2 patients, vitreous haemorrhage in 5 patients and localized intra retinal hemorrhage in one patient. We managed 3 patients conservatively as their retina remained attached despite globe perforation. The other four patients required vitrectomy with internal tamponade for their detached retina and dense vitreous hemorrhage. In the final analysis 1 patient was 6/19, 2 patients were 6/36 or better, their visual acuity being limited because of pre-existing diabetic maculopathy, myopic degeneration and cataract. 3 patients improved to counting fingers after their retinæ were repaired and 1 patient had a poor visual outcome. **Conclusion-** To prevent this complication superonasal gaze position should be avoided, extra care should be taken when injecting in a myope or during enhancement of the block and retrobulbar block should be abandoned altogether in high myopes and in patients with posterior staphyloma. If this complication does occur, the patients should be kept under close observation for signs of retinal detachment. If the retina remains attached then management may be conservative but in the event of a dense non-clearing vitreous hemorrhage or retinal detachment vitrectomy with internal tamponade should be undertaken.