Abstract: A 30 years old female with anal fissure posted for lateral sphincterotomy under spinal anaesthesia. The surgical procedure proceeded uneventfully. In the 12th post operative hour patient had one episode of seizure, disorientation and neck rigidity on examination (suggestive of meningeal irritation). Electrolyte imbalance was ruled out. Neurological assessment showed no deficit. Fundus showed clear media with disc hemorrhages and superior and nasal pole vessels-venous dilation with intra retinal hemorrhages present in the posterior pole in the paramacular region and retil hemmorhages in superior and nasal to disc and inferior quadrant. Right fundus showed clear media with superior pole hemorrhage and vessels-venous dilation in the disc with intra retinal hemorrhages in the posterior pole in the para macular area and pre retinal hemorrhages superior to disc and inferior quadrant. Once weekly follow up of the patient showed these hemorrhages to be resolving. By the end of 7 to 8 weeks most of the intra retinal hemorrhages had cleared with clinically normal disc and vessels.

Discussion
Anaesthesia can lead to variety of intra/post operative vision related symptoms. It is attributed either to the position of the patient, anaesthetic drug induced complication or direct toxicity of drugs on ocular structure. Pressure on the globe may lead to central retinal artery occlusion and corneal edema. Ketamine in association with glycine absorption during prostatic resection has caused transient visual loss in patients undergoing tubal insufflation in Trendelenburg position with intermittent positive pressure ventilation. Two cases of bilateral retinal hemorrhage following epidural injection have been reported. In both cases patient was spontaneously breathing during the entire procedure. The authors postulated that the hemorrhages were produced as the result of raised retinal venous pressure secondary to sudden raise in pressure in the epidural space that was transmitted to the cerebrospinal fluid. This was supported by the work of Usibiaga et al who have demonstrated that a rise in cerebrospinal fluid pressure of upto 85cm of H2O can be produced by injection of 20ml of fluid into lumbar epidural space. The size of the pressure rise was proportional to the speed and volume of injection.
The hemorrhages in our case was similar to those found in the fundus of valsalva retinopathy or terson's syndrome. In Valsalva retinopathy a raise in intrathoracic pressure due to coughing or chest/abdominal compression is directly transmitted to the retinal veins cause back pressure on retinal capillaries resulting in retinal hemorrhage.Terson’s syndrome is retinal /pre retinal hemorrhages occurring secondary to subarachnoid hemorrhage6. This was the initial thought. Later it was postulated that any sudden rapid increase in cerebrospinal fluid pressure was enough to cause intra ocular hemorrhage. Spinal anaesthesia or sub-arachnoid block (SAB), is a form of regional anaesthesia typically limited to procedures involving most structures below the upper abdomen.

In our patient intraoperative period was uneventful with no violent coughing or chest /abdominal a compression applied. Having ruled out intracranial bleed /infection and other likely systemic causes for intra ocular bleed we would like to consider spinal anaesthesia as the cause for bilateral retinal hemorrhage.

resolved haemorrhages after 4 wks

REFERENCES: