Evaluation of safety and efficacy of intravitreal bevacizumab at the end of vitrectomy for diabetic vitreous hemorrhage

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Diabetic vitrectomy
Diabetic vitrectomy

Postvitrectomy Bleeding
• 29% to 75%.

• Early from residual fibrovascular tissue.

• Late hemorrhage from fibrovascular proliferation or neovascularization at sclerotomies.


• Conservative.

• Fluid-air or fluid-gas exchange.

• Revitrectomy with PRP anterior to equator.

• Complex cases with RD require lensectomy, retinal reattachment and tamponade.

Bevacizumab

- Bevacizumab (Avastin), a full-length recombinant humanized monoclonal antibody which binds to and neutralizes all vascular endothelial growth factor-A (VEGF-A) isoforms.

**Intravitreal Bevacizumab Injection:**

- Intravitreal injection of bevacizumab (Avastin, Genentech, Roche, SF, USA) 1.25mg in 0.05 ml was done at the end of vitrectomy.
• **Mosesson (2005):** Intravitreal bevacizumab injection at the end of a surgery may decrease postoperative vitreous hemorrhage since it can potentially reduce bleeding from residual fibrovascular tissues.

• **Yang et al (2008):** Bevacizumab inhibits early neovascularization.


• **Charles et al (2007):** the use of anti VEGF delay the repairing process of injured blood vessels.

- We evaluate the clinical outcome and complications of intravitreal bevacizumab (IVB) at the end of vitrectomy in patients with diabetic vitreous hemorrhage.
Postoperative Visual Outcome

Group I
- Worsen
- Stable
- Improved

Group II
- Stable
- Improved

Early postoperative bleeding

IVB Group
- Bleeding

Control
- Bleeding
- No bleeding

P = 0.002
Late postoperative bleeding

IVB

Control

P = 0.34

Home message
• Intraoperative intravitreal bevacizumab decreases the incidence of early postoperative bleeding. However, it did not affect the incidence of late postoperative bleeding in cases of vitrectomy for diabetic vitreous hemorrhage.