



Malignant Glaucoma: A challenge in ophthalmic practice

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Malignant glaucoma was first described by Von Graefe in 1889.⁽¹⁾ It is a rare and aggressive form of postoperative glaucoma, often resistant to treatment and may result in blindness. The incidence of malignant glaucoma varies from 0.4-6%. It is common (2-4%) in eyes with primary angle closure (PAC) and occurs after any intraocular surgery like trabeculectomy,⁽²⁾ cataract surgery,⁽³⁾ tube drainage surgery⁽⁴⁾ and vitrectomy or laser procedures like Nd: YAG laser posterior capsulotomy⁽⁵⁾ and diode laser cyclo-photocoagulation.⁽⁶⁾ Malignant glaucoma is believed to be a type of cilio-lenticular block with rise in IOP due to abnormal flow of aqueous into the vitreous rather than anterior chamber.⁽²⁾ Congenital anomalies of ciliary body, choroid and lens may predispose posterior diversion of aqueous into vitreous. Anterior rotation of ciliary process can cause ciliary block. Choroidal exudates produced due to surgical intervention, is unable to pass through an abnormally permeable vitreous causing vitreous body to exert pressure on the lens and ciliary body.

To achieve relief from the malignant glaucoma, direct communication is required between AC and vitreous cavity. The initial management of malignant glaucoma is medical consisting of cycloplegics, oral acetazolamide and hyperosmotic agents and it is reported that 50% of patients relief in about 15 days.⁽²⁾ In pseudophakic eyes Nd:YAG laser hyaloidotomy is an effective procedure. Transscleral cyclodiode laser CB ablation has been reported to be effective in eyes refractory to medical treatment. In phakic eyes lensectomy with anterior vitrectomy is recommended to create a communication between vitreous cavity and the AC.⁽⁷⁾ Combined lens extraction, primary lens capsulectomy and vitrectomy may be another surgical option. Recently vitrectomy-phacoemulsification – vectrectomy followed by peripheral iridectomy (PI) is recommended by vitreoretinal surgeons. The zonohyaloido-vitrectomy can be performed to reverse the malignant glaucoma in pseudophakic eyes.

References

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