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The advances in the field of ophthalmology during the past two decades have been revolutionary. Although an association between Glaucoma and elevated intraocular pressure was first suggested 379 years back (1622) by Richard Bankister, it was not recognized until 19th century that glaucoma was distinct group of ocular disorder. Surgical attempts to treat glaucoma by lowering pressure developed only in the 19th century when this link became generally accepted.

Glaucoma is a leading cause of irreversible blindness through the world. The World Health Organization spastics published in 1995 indicate that Glaucoma account for blindness in 5.1 million person or 13.5% of global blindness (behind cataract & trachoma at 15.8 million & 5.9 million person or 41.8% and 15.5% of global blindness respectively.

Glaucoma is the third leading cause of blindness with an estimated 5.1 million people world wide who is blind as a result of this disease. It is the second leading cause of blindness in United States and Fourth in India. Due to aging of the population, the
number of patients with Glaucoma is rising, and by the year 2000, approx, 67 million people are expected to be blind as a result of this disease.

Glaucoma is still one of the most puzzling diseases in the ophthalmology. Its prevalence is increased due to increasing. Life expectancy and better diagnostic techniques and is considered next to cataract in causing visual morbidity.

Glaucoma is symptomatic condition not a disease characterized by increase intraocular pressure which is not compatible with normal physiological function of eye (Diurnal variation >5mm) resulting, damage the optic nerve head & irreversible visual field defect.

Glaucoma is a triad of complex consisting of raised intraocular pressure, disc changes and field changes. Presence of all or any two of the findings are essential to make diagnosis. Glaucoma is now considered as an optic neuropathy of unknown etiology. Various risk factors have been found to be associated to the causation of disease like, age, Heredity, Myopia and diabetes. The disease is characterized by structural changes visible in optic disc and never fibre layer and functional changes detected by
static and kinetic perimetry. The intraocular pressure is only a factor which can be modified to date.

The conventional method for reducing intraocular pressure is Filtration surgery.

Various types of Filtration surgery have been done by different ophthalmic surgeons, like sclerotomy, Iridencleisis, Filtering bleb Sclerecto- Iridectomy, posterior lip sclerotomy. In 1968 CAIRNS developed a new technique for Glaucoma surgery called Trabeculectomy. Now Trabeculectomy is the procedure of choice for Glaucoma surgery, although the success rate in lowering intraocular pressure is not higher but it reduces the incidence of complication and today it is the only surgical procedure for maintaining normal intraocular pressure in the long term. The mechanism postulated to account for intraocular pressure reduction after trabeculectomy include transconjunctival filtration of aqueous, resorption through walls of degenerated veins, movement of aqueous into superficial conjunctival lymphatic or into aqueous vein. Out flow may be via schlemms canal in few cases or perhaps even through uveo-scleral drainage. The
character and morphology of the bleb is determined by the predominance and combination of these routes.

Trabeculectomy may fail from occlusion of internal sclerostomy (by iris, descemet membrane, vitreous blood or ciliary body) or from external scarring of the surface tissues. Internal occlusion is largely preventable by proper surgical technique. Fibrosis over the external sclerotomy site, however, is a far more important cause of failure of bleb formation and is harder or impossible to prevent.

Maintenance of normal intraocular pressure after Trabeculectomy alone appears sound at onset but its long term efficacy in maintaining a normal functioning bleb and hence normal intraocular pressure is disappointing in due course of time i.e. over months and years. Thus can be attributed to postoperative progressive scarring of conjunctiva and tenons capsule at the filtrate site, a process in which fibroblasts play a prominent role.

The use of antifibrotic agent, like 5-FU, has its advantages and disadvantages, intraoperative use of 5-FU has been shown to be beneficial at the time of initial surgery in phakic eyes with open
angle glaucoma. Adjunctive 5-FU increases success rate, decrease the level of postoperative intraocular pressure and reduces the postoperative anti-glaucoma medication. Intraoperative and long term side effects of 5-FU are minimal if the drugs is properly used during surgery.

Hence this study was carried out to further our understanding of the effect of triangular and square scleral flap on successful outcome of glaucoma pressure and minimal intraoperative , immediate postoperative and long term complications with the use of adjunctive 5-FU.