SUMMARY

Primary congenital glaucoma is a condition in which the eye have an isolated maldevelopment of the trabecular meshwork with consequent raised intraocular pressure, enlargement and haziness of the cornea and optic nerve damage that lead to deterioration of vision in early childhood.

The incidence, heredity, embryology and anatomy of the angle of the anterior chamber, the pathogenesis, diagnostic parameters, role of medical treatment and evolution of surgical management were discussed in the review of literature.

The management of primary congenital glaucoma is essentially surgical. The present study attempted to evaluate Goniotomy and Trabecualotomy ab externo in management of early and moderately advanced primary congenital glaucoma respectively.

Fourty eyes with primary congenital glaucoma were selected to be included in the study. Eighteen eyes with corneas clear enough to allow proper gonioscopy were operated on by goniotomy. Twenty two eyes with hazy to opaque corneas were operated on by trabeculotomy ab externo.

The technique of each operation and the results of each, were compared with those of other investigators.

Goniotomy is the prefered operation for every case with clear cornea as it is less traumatic to the eye,can be repeated several times when necessary, and do not compromise the conjunctiva for subsequent surgery if needed. Its drawback is that it needs special surgeon familiar with the normal and pathologic appearance of the angle in infants and children. It needs a trained assistant and a deep anterior chamber that permits good visiblity of angle structures.

Trabeculotomy ab externo has the advantages of higher success rate (90.9% Compaired to 83.3% with goniotomy), can be done with undiminished accuracy in eyes with opaque corneas. It does not need a well trained assistant. For its success it need good localization and exposure of the canal of Schlemm which should be patent to be cannulated and ruptured internally.

Both operations seemed to be safe with minor complications; the most common of which was hyphema that occurred in 60% of cases but it was mild in most eyes and need one to two days to be absorbed. Other complications were iridotomy in three eyes, and iridodialysis in two eyes, failure to find Schlemm's canal in one eye, detachment of peripheral part of Descemet's membrane in two eyes and filtering bleb in two eyes.

The importance of life-long follow up was stressed.