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FAMILIAL BILATERAL CONGENITAL GLAUCOMA – A RARE CASE REPORT

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ABSTRACT Congenital glaucoma is a rare disease affecting children early in life. Primary congenital glaucoma was considered untreated with inevitable blindness,however recent advances in biochemical & genetic studies, the introduction of new diagnostic tools, intraocular pressure lowering medications& improvement of surgical techniques have led to a better understanding of thisdevastating disease & preserving the vision of affected children.

KEYWORDS : :

INTRODUCTION:

Congenital glaucoma is a heterogeneous group of diseases with following classification.

Congenital - is existent or becomes evident at birth

infantile –becomes evident during early childhood (< 3 yrs)

juvenile – becomes apparent in later childhood (>3 yrs)

incidence of congenital glaucoma is about 1 in 10,000 –1 in 18,000 live births& depends heavily on ethinic groups.

Congenital glaucoma is highly prevalent in inbred populations & consanguinity is strongly associated.In 75% of cases both the eyes are affected,males are more affected than females.

90% of cases occur sporadically & only 10% of cases have an increased frequency in their family,mostly with an autosomal recessive pattern of inheritance.

CASE REPORT:

A 29 yrs old lady , 2nd gravid , para 1 live1,with previous LSCS, married for 6 yrs, second degree consanguinity, booked &immunised patient on regular antenatal visits, with a history of she herself a twin baby with congenital glaucoma has undergone surgical correction at 40days of life ,(medical reports – showed peripheral iridotomy,with squint, a know case of gestational diabetics on oral hypoglycemic agents (sugars under control), came to us in early labour at 38wks of gestation , emergency LSCS was done in view of previous LSCS in early in labour ,an alive term male baby of 2.5kg , on 25/9/19 at 4:02 am,APGAR of 8/10&9/10 with bilateral corneal clouding, ophthalmologist opinion obtained on examination baby had bilateral corneal opacities, with increased corneal diameter.baby was started on a topical beta blocker & antibiotic, referred to glaucoma specialist with experience in congenital glaucoma ,trabeculotomy was done in right eye on day 5 of life ,followed by in left eye after 2 weeks.now the baby is on regular follow up with paediatrician & ophthalmologist.

Post surgery image

DISCUSSION:

Congenital glaucoma is caused by impaired aqueous outflow due to abnormalities in development of anterior chamber,there are several pathogenesis:

Anomalous trabecular meshwork development.(neural crestopathy)

Barkan membrane covering the trabecular mesh work.

Anterior insertion of the ciliary body (due to arrest in the normal migration uvea) contributes to narrowing / collapsing of schlemm canal.

Absent schlemm canal.

Resistance to the flow of acqueous causes rise in intraocular , that induces a decline in viable retinal ganglion cells,just as in adult glaucoma which leads damage of visual field & eventually a decline of visual acuity.visual loss results from descement breaks,corneal edema, optic neuropathy and eventually buphthalmos & ambylopia.

Classical triad of symptoms are:

Epiphora

Photophobia

Blepharospasm & corneal opacities.

Signs include enlarged/ asymmetric optic cupping,IOP>10-12mmhg, iris heterochromia, ectopia lentis, aniridia.The treatment of congenital glaucoma needs a team approach to normalise IOP, correct exsiting errors of refraction & anterior segment architecture & to enable physiologic maturation of visual pathway.the prefered mode of treatment for congenital glaucoma is surgical.

Goniotomy & trabeculotomy collectively known as “ANGLE SURGERY” is the preferred treatment with 90% success rate. Goniotomy – when cornea is clear & trabeculotomy –when cornea is cloudy.Early & accurate diagnosis of congenital glaucoma is vital,so that appropriate management can be initiated before irreversible damage to the optic nerve takes place.

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