Glaucoma Research Society

# MEDICAL THERAPY OF GLAUCOMA IN INFANTS AND CHILDREN

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**Background**: Literature regarding the use of medications to treat infantile and pediatric glaucomas is sparse because these types of glaucoma are predominantly treated surgically and there are constraints on research in children. Nevertheless, medications are often used in children who may respond differently than adults. It is highly desirable to expand our understanding of the safety and efficacy of various agents in pediatric glaucomas.

**Design**: Retrospective, non comparative case series

**Participants/Methods**: Forty-five eligible patients were identified during a chart review performed on infants and children 10 years of age or less who had been treated with glaucoma medications.

**Main Outcome Measures**: IOP response and side effects

**Results**: The majority of patients in this series had some form of congenital glaucoma; the second largest group had glaucoma following congenital cataract surgery. Most agents were well tolerated, the exception being Alphagan, which caused significant sedation requiring discontinuation of the medication. In general, IOP response to medication was poor, particularly in the younger patients. However several children 5-10 years of age had a beneficial response to prostaglandins.

**Conclusions**: Only alphagan, among various agents used in this retrospective case series, demonstrated substantial toxicity requiring discontinuation. Prostaglandins appear relatively effective in older children. In general IOP response to medication was poor among younger children.

Updated: September 3, 2003 9:46 PM AST