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Pediatric glaucoma surgery: a report by the American Academy Of Ophthalmology.

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Abstract

OBJECTIVE:

To review the current published literature to evaluate the success rates and long-term problems associated with surgery for pediatric glaucoma.

METHODS:

Literature searches of the PubMed and Cochrane Library databases were last conducted in May 2012. The search yielded 838 potentially relevant citations, of which 273 were in non-English languages. The titles and abstracts of these articles were reviewed by the authors, and 364 were selected for possible further review. Members of the Ophthalmic Technology Assessment Committee Glaucoma Panel reviewed the full text of these articles and used the 36 that met inclusion and exclusion criteria for this Ophthalmic Technology Assessment. There were no studies on the topic that provided level I evidence. The assessment included only level II and level III studies.

RESULTS:

Surgeons treat pediatric glaucoma most commonly with goniotomy, trabeculotomy, trabeculectomy, combined trabeculotomy and trabeculectomy, tube shunt surgery, cyclodestruction, and deep sclerectomy. Certain surgical options seem better for specific diagnoses, such as primary congenital glaucoma, aphakic glaucoma, and glaucomas associated with other ocular or systemic anomalies.

CONCLUSIONS:

There are many surgical options for the treatment of the pediatric glaucomas. The relative efficacy of these various procedures for particular diagnoses and clinical situations should be weighed against the specific risks associated with the procedures for individual patients.