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SURGICAL OPTIONS FOR CONGENITAL CATARACT
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Relevance. The relevance of this abstract lies in providing a comprehensive overview of the surgical options available for treating congenital cataract, a significant cause of childhood blindness.

Aim. The aim of the abstract is to discuss the merits and demerits of different surgical techniques, such as extra-capsular cataract extraction, phaco-emulsification, and intra-ocular lens implantation, to help ophthalmologists make informed decisions when managing congenital cataract cases. By highlighting the key considerations and potential complications associated with each procedure, this abstract aims to enhance understanding and optimize outcomes in the surgical management of congenital cataract, ultimately improving visual function and quality of life for affected children.

Materials and methods. A retrospective analysis and data gathering of different norms and regulation regarding surgical options present for congenital cataract from National Institute of Ophthalmology, Pune (nioeyes.com) as well as textbooks such as Comprehensive ophthalmology written by A.K. Khurana and Kanski's Clinical Ophthalmology written by John Salmon. Some data was collected by sources as competitive examination coaching and different notes.

Results and their discussion. Congenital cataract is a significant cause of childhood blindness, necessitating timely and effective surgical intervention to restore visual function. This abstract explores the various surgical options available for treating congenital cataract, including extra-capsular cataract extraction (ECCE), phaco-emulsification, and intra-ocular lens (IOL) implantation. Each procedure has its own merits and demerits, which are discussed in detail to provide a comprehensive understanding of the surgical management of congenital cataract. ECCE involves the manual removal of the cataractous lens through a large incision, allowing for the insertion of an IOL. While ECCE is a well-established technique with a low risk of complications, it may result in higher rates of astigmatism and longer visual recovery times compared to phaco-emulsification. Phaco-emulsification, on the other hand, utilizes ultrasound energy to break up and remove the cataract through a smaller incision, leading to faster visual rehabilitation and reduced astigmatism. However, phaco-emulsification may be technically challenging in cases of dense or complicated cataracts. IOL implantation is a crucial component of congenital cataract surgery, providing refractive correction and improving visual outcomes. The choice of IOL type (e.g., monofocal, multifocal, or toric) must be tailored to the individual patient's needs and ocular characteristics. Intra-operative complications such as posterior capsular rupture, zonular dehiscence, and endophthalmitis are potential risks associated with IOL implantation, highlighting the importance of meticulous surgical technique and postoperative care.

Conclusion. The selection of the most appropriate surgical approach for congenital cataract should be based on the patient's age, ocular anatomy, visual potential, and surgeon's expertise. By weighing the merits and demerits of each procedure and considering individualized factors, ophthalmologists can optimize outcomes and enhance visual function in children with congenital cataract. Continued research and advancements in surgical techniques will further refine the management of congenital cataract, ultimately improving the quality of life for affected individuals.