

6. MODERN APPROACHES TO GLAUCOMA SURGICAL TREATMENT



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Introduction. Primary open-angle glaucoma, the leading cause of irreversible blindness globally, affects over 3% of people over 40 and is expected to exceed 111 million cases by 2040. Traditional management methods include pharmacological interventions and surgical techniques like laser therapy and trabeculectomy. Researchers are exploring alternative surgical methods like ab-interno procedures and microinvasive glaucoma surgery to reduce intraocular pressure and promote recovery. This literature review aims to study the various treatment methods in POAG to establish their functionality and clinical significance.

Aim of study. Studying the variety of methods of treatment in open angle glaucoma in order to establish the functionality and clinical significance.

Methods and materials. The study analyzed literature on MIGS from 50 abstracts and articles using the PubMed database, optimizing search using Medical Subject Headings terms and free-text keywords, including randomized controlled trials and case series.

Results. MIGS is a potential treatment for glaucoma, targeting different pathways for aqueous humour drainage. It offers improved safety features and shorter recovery times. It is often recommended for mild to moderate glaucoma due to its smaller effect on IOP reduction. However, its efficacy in advanced cases or patients with lower target IOP may be limited. Further research is needed to assess long-term consequences and comparative effectiveness across different MIGS methods. The cost-effectiveness of MIGS compared to traditional glaucoma operations remains uncertain.

Conclusions. The study demonstrates that minimally invasive glaucoma surgery can significantly improve the quality of life and overall well-being of individuals. The majority of MIGS techniques are efficient and faster in restoring visual function compared to fistulating surgeries. The ab interno technique also has minimal complications, no antimetabolite usage, and preserves conjunctival integrity, making it suitable for combined cataract surgery.