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## CHALLENGES OF TREATING GLAUCOMA DURING PREGNANCY

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## INTRODUCTION

Glaucoma, the leading cause of irreversible blindness in the world, is a neurodegenerative disease characterized by progressive damage to the optic nerve. The management of glaucoma during pregnancy is challenging for patients and doctors, and the risks of control medications must be considered throughout pregnancy to ensure fetal development. **Objectives:** This article aims to explore and elucidate the challenges present in the treatment of glaucoma during pregnancy.

## METHODOLOGY

This is a literature review of articles published in the last 4 years, using the PubMed database and the following MeSH descriptors: “Glaucoma”, “Antiglaucoma Medications” Pregnancy” and “Pregnancy Complications”.

## LITERATURE REVIEW

In the first trimester, any therapy is avoided, but if necessary the drug of choice is Brimonidine, an alpha 2 agonist (B). In the second trimester, Brimonidine is the first choice, other alternatives are class C medications: beta-blockers, prostaglandin analogues (PA) and carbonic anhydrase inhibitors

(CAI). The possible fetal side effects of these drugs are: Betablocker (Timolol/Betaxolol), bradycardia and altered growth. The use of PA (Latanoprost and Travoprost) could theoretically induce premature labor, but no cases have been reported. IAC (Dorzolamide) can cause limb deformities, low birth weight and kidney dysfunction. From the second half of the third trimester and during lactation, Brimonidine is absolutely contraindicated as it is secreted in breast milk and can cause CNS depression, hypotension and apnea in infants. In this period, if IOP is uncontrolled, the options of choice are beta-blockers and IAC. Laser therapy can be used in any gestational period, as it has topical anesthesia and requires few medications in the preoperative period, however, in Brazil access is still restricted. Filtering surgeries should be avoided during the first trimester due to the inhaled anesthetics, but from the second trimester onwards, they can be used as a last option.

## CONCLUSION

Monitoring glaucoma treatment during pregnancy is necessary to ensure therapeutic efficacy and maternal and child safety. It is worth noting that expanding access to lasers will ensure greater safety during this period and is therefore crucial to minimizing the risks of the specific challenges of this condition in pregnant women.

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