Is there a general rule for management of glaucoma in pregnancy and lactation? Reflections around two case reports

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Purpose: Management of glaucoma during pregnancy and lactation is a challenge for the ophthalmologist. There are several important questions to be answered: do we have to treat during this period or can we wait after delivery? How fast is glaucoma damage progressing? When does IOP become an unacceptable risk? When does IOP become an unacceptable risk? When should the mother be advised not to breastfeed the newborn due to treatment? The present work aims to describe difficulties arising in the management of a relatively uncommon situation through 2 different case reports.

Methods: Case 1. A 37 year-old, 2 weeks pregnant with a family history of glaucoma. BCVA, IOP and central corneal thickness for right (RE) and left (LE) eye were 0.9/0.6, 18/20 mmHg and 577/576 microns, respectively. Normal slit lamp examination in both eyes. Both optic disks (figures 1 and 2) showed reduction at temporal inferior rims. Visual field (VF) of the LE presented a superior, incomplete arcuate defect and a paracentral scotoma with MD -7.75dB. The VF in the RE was normal (figures 3 and 4).

Case 2. A 36 year old woman with a family history of glaucoma, her newborn just delivered one week ago. BCVA and IOP for RE and LE were 1.0/0.6 and 30/31mmHg. Normal slit lamp examination. Both optic discs (Figures 6 and 7) showed a 0.9 cup/disc ratio, consistent with advanced glaucoma. Both VF showed a reduced central island of vision with MD around -25dB in both eyes (Figures 8 and 9).

Results
In case 1 we decided to perform a full ophthalmologic examination including applanation tonometry, VF testing and retinal nerve fiber layer plus optic nerve head OCT assessment, every 3 months. As no progression was detected, we did not start any treatment. After delivery we planned to start medical therapy, closely monitoring her response to treatment. In agreement with the patient, we decided to avoid breastfeeding to minimize risks for the newborn. In case 2, our first option was to start medical therapy, thus breastfeeding was prevented. A 3-drug maximal medical therapy lead to a 35% IOP reduction in both eyes, which was considered to be insufficient. 8 months later, a trabeculectomy was performed on the LE. And 2.5m after this surgical procedure, trabeculectomy was also performed on the RE. At the present moment, 7 and 5 months after the surgeries, respectively, the VA are 0.8/0.8 and IOP 8 and 10 mmHg, without any topical treatment

Conclusion
Answers for the different questions arising in front of glaucoma management during pregnancy and lactation are diverse, and should be individualized according to specific findings in each situation.

In case 1, we had to consider the significant glaucomatous damage at the beginning of pregnancy, with no information concerning previous progression, in a context of an “acceptable” level of IOP. We considered that the risks of treatment exceeded its possible benefits, allowing for a conservative strategy. In case 2, IOP was considered to be unacceptably high after a trial with maximal medical therapy, in the context of bilateral advanced VF loss in a young woman that had just delivered her newborn. In this situation, a surgical procedure was indicated to prevent any progression of the disease.

Bibliography