

MANAGEMENT OF THE POST-OP DMEK PATIENT

What are the main things to look for?

Epithelial irritation due to preserved eye drops is the most common problem in the early post-op period (<2 weeks post-op). The most common problems more than 2 weeks after DMEK are increased intraocular pressure (IOP) due to topical steroid use, and allograft reaction (rejection) due to insufficient topical steroid use.

What are the signs and symptoms of epithelial irritation related to eye drop preservatives?

Epithelial haze and punctate erosion, especially inferiorly. Reduced visual acuity, foreign body sensation and photophobia are also common.

When can rejection occur?

Any time more than two weeks after surgery.

What should IOP be?

It depends on the health of the optic nerve, but normal IOP (10-21 mm Hg) with IOP similar to that of the unoperated eye is a good starting point.

Does rejection cause early symptoms?

Not always, but photophobia and bulbar injection may occur.

What are the signs of rejection?

Increased cell, KP on the graft, an increase in pachymetry of > 10%, observed cell loss with specular microscopy.

When can glasses be prescribed?

Refraction is generally stable 3 months post-op.

How long are steroids needed post-operatively?

Low dose topical steroid drops may be used indefinitely if they are well tolerated and the patient is available for IOP monitoring. Recent evidence suggests that in some cases, it may be possible to discontinue topical steroids after one year.

In summary, problems are infrequent after DMEK. Since rejection occurs with 1/15 the frequency of DSAEK and 1/20 the frequency of PK, the need for medications after surgery is minimal when compared to any other type of endothelial transplant surgery.

This is not meant to be a comprehensive discussion of post-op DMEK management, but rather a starting point for ongoing care of the typical post-op DMEK patient. Please do not hesitate to call us (205-933-1077) or refer your patient back if we can provide any additional assistance!

POST-OP MEDICATIONS FOR DMEK AND DMEK/CATARACT PATIENTS

Steroid Drops:

1. Steroid drops are usually used four times a day for the first three months post op.
2. The drops are usually tapered by one drop per month after the first three months with continuing use, for at least one year, of at least a daily steroid drop in the operative eye.
3. Dexamethasone and/or prednisolone are usually used for at least the first month, but loteprednol may be substituted in patients with a high risk of glaucoma.
4. Loteprednol or fluorometholone can be substituted for prednisolone if pressure problems appear after the first month post op.

Nonsteroidal Anti-Inflammatory Drops:

1. Bromfenac or nepafenac drops are usually used once daily for at least one month post op.
2. Alternatively, ketorolac or diclofenac drops may be use four times a day for one month post op.

Antibiotic Drops:

1. Most often, we use a 5 ml bottle of tobramycin/dexamethasone four times a day immediately after surgery. This one drop provides both antibiotic and steroid protection. When the bottle is empty, prednisolone or loteprednol may be substituted for the tobramycin/dexamethasone combination to complete the steroid need described above.
2. In the event of tobramycin sensitivity or a history of steroid responsiveness, a quinolone may be used for the first week post op along with either prednisolone or loteprednol which are continued as described above.

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