A. **Endothelial Keratoplasty in unicameral eyes with AC IOLs:**
- Realize that the eye is a single chamber and allow for adequate air injection

**Pearls:**
- a. Consider removing AC IOL and replacing with sulcus-positioned, iris or scleral fixated PC IOL. This is especially important in the setting of cystoid macular edema
- b. Consider using a chamber maintainer for all maneuvers. Viscoelastic may not be easy to remove unless the eye is vitrectomized. Be prepared to perform an anterior or pars plana vitrectomy, if necessary
- c. If you decide to maintain the AC IOL, consider graft insertion technique that is compatible with reduced working space (remember, plastic is not the corneal endothelium’s best friend)
- d. Maintain air in eye – no need to burp air out unless IOP is very high (usually, no pupillary block)
B. **EK in unicameral eyes with iris or scleral fixated PCIOLs:**

These eyes usually behave like most PCIOL pseudophakes except for the possible migration of air into the vitreous cavity.

**Pearls:**

a. Monitor air migration during injection and amount for all air injected into the eye.

b. May not need to burp air out after initial period of tamponade (pupillary block unlikely) unless IOP very high.

C. **EK with IOL exchange:**

**Scoring, stripping and use of viscoelastics in unicameral eyes:**

As a rule I prefer to avoid viscoelastics in these cases.

**Pearls:**

a. Avoid dispersive devices.

b. Consider performing the entire procedure with a chamber maintainer or irrigating scorer/stripper.

c. If using a chamber maintainer, consider passing the tubing from the bottle through the lock on a phaco machine to allow foot control by surgeon. Unwanted irrigation may lead to unwanted expulsion of donor graft out of the eye.

d. Remember: Descemet Membrane stripping may not be necessary in non-guttate endothelial dysfunction.

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