

Cornea Suturing Wetlab

Learning Objectives

- Understand the physics of corneal wound/incision closure
- Create and close linear and stellate corneal incisions

Materials

- Pig/goat eyes
- Supersharp blades
- BSS
- Fine non-locking needle holders
- 10-0 nylon suture
- Colibri or straight 0.12 forceps
- Vannas scissors
- Tying forceps

Preparation

- Please read the following:
 - Macsai chapter on physics of wound closure
 - Macsai chapter on traumatic laceration repair
 - Krachmer section on corneal laceration repair

Procedure

1. Inject some BSS into the anterior chamber of the pig/goat eye to reform the anterior chamber to physiologic turgor.
2. Use a blade to create a linear partial thickness incision in the cornea.
3. Close this incision with 10-0 nylon sutures in an interrupted fashion.
4. Repeat process with a full thickness linear incision as well as a stellate (Mercedes sign) full thickness incision.
5. Reform the anterior chamber with BSS to confirm that wound is free of leakage.