



# **XLIX CONGRESSO REGIONALE S.O.Si.**

**PRESIDENTE: PROF. PASQUALE ARAGONA**

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**UNAHOTELS - NAXOS BEACH SICILIA (ME)**

Corneal harvesting

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# Cornea harvesting



surgical removal from a deceased person of either the whole eye (enucleation) or the cornea (in situ corneal excision)



Comparative Study > Cornea. 2018 Aug;37(8):957-963.

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## Donor Cornea Harvest Techniques: Comparison Between Globe Enucleation and In Situ Corneoscleral Disc Excision

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**Conclusions:** After a transient technical learning period, in situ CD excision proved to be a method of donor cornea recovery with similar cultivation performance and clinical results compared with whole eye enucleation. It also may have led to higher willingness to donate, possibly because of better acceptance by the relatives of the deceased.

	<b>PROCEDURA</b>		<b>DS 00 PRO 86</b>	
<b>DONAZIONE DI TESSUTI DI ORIGINE OCULARE A SCOPO DI TRAPIANTO</b>			<b>Rev. 0</b> <b>Data</b> <b>05/12/2018</b>	<b>Pagina</b> <b>1 di 13</b> <b>All.n°11</b>

# Donor cornea harvest technique

- Examination of the eyes for foreign objects and other defects, corneal transparency
- Aseptic methods, including maintaining a sterile field

# Preparation of the operating field

- Disinfect the periorbital skin with 10% povidone-iodine
- Instill 5% povidone-iodine into the conjunctival sac
- Wash thoroughly, after 2 minutes, with sterile balanced saline solution
- Replace gloves



# Sterile field preparation

- Prepare a support surface near the donor
- Wear a mask
- Wash your hands thoroughly with soap or skin disinfection solutions
- Put on a sterile gown and gloves
- Open a sterile drape to place the material needed for the collection
- Open the box containing the surgical instruments on the drape
- Apply a sterile surgical drape to the donor's face (ophthalmological use)
- Open the bottles of corneal preservation liquids, keeping the closing caps

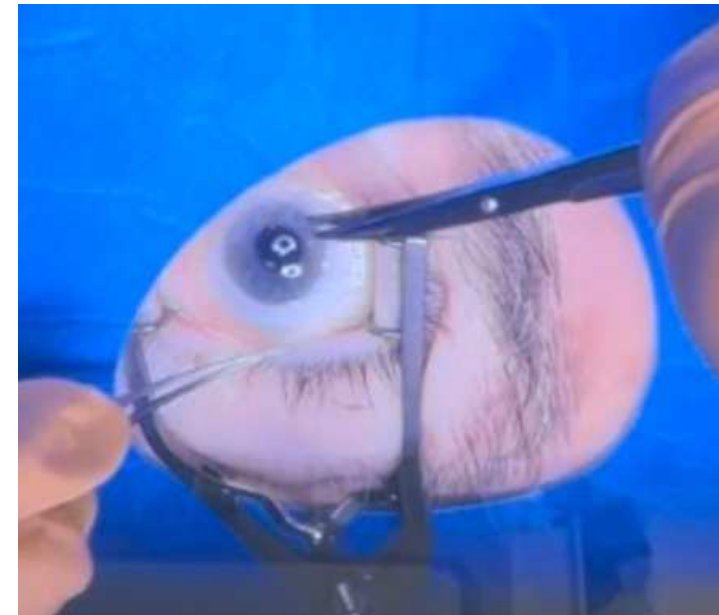




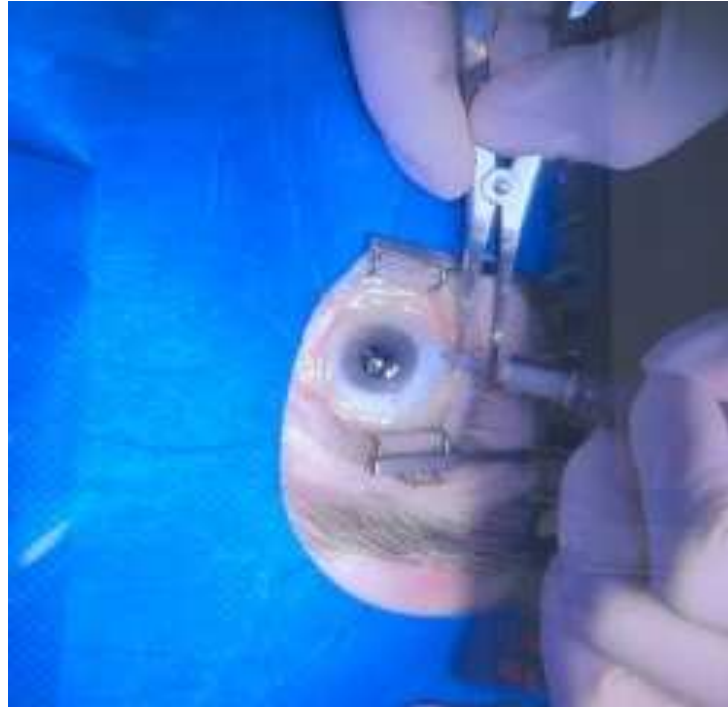


# Cornea harvesting

- Position the blepharostat taking care to block the eyelashes under the adhesive film of the sheet
- Perform peritomy of the bulbar conjunctiva at the limbus for 360°, exposing the sclera for 4-5 mm



- Perform a pre-cut of the corneo-scleral ring at approximately 4 mm from the limbus with a microscalpel.



- Perform a full-thickness cut of the corneo-scleral ring with a micro scalpel and/or keratotome or dedicated drill.
- This maneuver must be performed with great care, keeping the ring under slight tension with forceps and proceeding for short distances (traumatic contact between the iris and the endothelium could occur)



- Perform the sampling by lifting the corneo-scleral ring with two corneo-scleral surgical forceps with a rapid and continuous movement in order to reduce the folds of the cornea, avoiding distortions.
- Before proceeding with the sampling, check that the cut is complete and full thickness (the folds from traction or hypotonia reduce the endothelial baggage and worsen the quality of the cornea)



- Insert the corneo-scleral ring into the preservation liquid, letting it fall to the bottom of the vial





- Apply the corneo-scleral conformer (if the conformer is not available, a wet cottonball can be used)
- Suture the eyelid with 6-4/0 black silk.



- Apply the identification label (provided by the Bank) to the bottle, writing: name and surname of the donor, date of birth, OS or OD, collection date.

- Change gloves, putting on another sterile pair, before proceeding with the sampling of the other eye.



