Standardized DMEK surgery: Results in the first 100 routine cases of Fuchs dystrophy and PBK

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Disclosures

- The speaker has no financial interests relevant to the topic of this talk.
- Non-relevant disclosure: Merck speakers bureau.
- Dr. Terry receives royalties from Bausch and Lomb for the surgical instruments he has developed.
- Off Label Use of: Trypan Blue, SF6 Gas, Modified Jones glass tube.
Pre-stripped Donors for DMEK:
LVG: Current Tissue Wastage rate of <3%
Pre-Marked Donor Tissue: S-Stamp Technique

Technique conceived by Philip Dye, Lions VisionGift, Portland, OR
Standardized DMEK Technique
Results with Standardized DMEK in first 100 cases

\( N = 100 \) (4 surgeons, includes Fellows first cases) for routine Fuchs and PBK

Re-bubbles: 7 \( (\text{rate} = 7\% \ldots \text{only } 4\% \text{ if PGF excluded}) \)

Iatrogenic PGF: 3 \( (\text{rate}: 3\%) \)

(3 of 3 cases due to upside-down graft)

(NO upside-down grafts since using S stamp)

In prior 68 cases using plastic injectors, Melles anterior bubble technique, and air bubble support:

Rebubble: 33%

PGF 15%
Results with Standardized DMEK in first 100 cases

Endothelial cell loss at 6 months (n= 57): 29% (s.d. = 16%)

Mean Visual Acuity at 6 months (n= 57): 20/28 (range: 20/20 to 20/50)

Percent of eyes 20/20 or better at 6 months = 37%
Percent of eyes 20/25 or better at 6 months = 61%
Summary and Conclusions

- With the advent of pre-stripped and pre-marked tissue, Yoeruek Tap technique, Straiko glass inserter, and use of SF6 gas, the DMEK procedure now has as low a complication rate as DSAEK and better visual results in routine cases.

- Patients deserve the best and safest surgery.

- DSAEK will still be needed for complex cases.

- Surgeons now can accept DMEK as “ready for prime time” and learn the surgery.
Thank You

Standardized DMEK Technique

CHARLIE

CINDY

NICHOLAS