Background and Rationale

- The cornea is vulnerable to trauma, injury, or infection resulting in loss of corneal clarity and vision.
- Restoration of corneal transparency and sharp vision depends on a wound healing process controlled by several factors.
- Significant tissue-dependent wound healing differences between men and women have been reported in various human clinical studies.
- Dermal wound healing was shown to be faster in women than in men, while wound healing in mucosal tissues was superior in men.
- The role of sex in corneal wound healing is still unknown.

Hypothesis and Objective

- We hypothesized that sex plays a minimal role in corneal wound healing in vivo.
- The objective of this study was to determine the role of sex in corneal wound healing in vivo using an established chemical-wound model employing male and female rabbits.

Results

- The clinical imaging and histological data collected thus far suggest that sex plays a limited role in corneal wound healing.
- Quantification of RNA levels of α-SMA, COL-I, Fibronectin, and TGF-β in the wounded rabbit corneas are underway.
- Full analysis of pending studies is warranted.

Conclusions

- The clinical imaging and histological data collected thus far suggest that sex plays a limited role in corneal wound healing.
- Quantification of RNA levels of α-SMA, COL-I, Fibronectin, and TGF-β in the wounded rabbit corneas are underway.
- Full analysis of pending studies is warranted.

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