

Outcomes of Subconjunctival Gel Microstent Implantation: Age and Gender Analysis

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Purpose

To determine whether differences in surgical outcomes of the subconjunctival gelatin stent (XEN45) are associated with advanced patient age and gender.

Methods

Retrospective analysis of patients who received a XEN45 implant for medically uncontrolled glaucoma at a tertiary care center between January 2017-December 2018 was conducted. Demographic data, intraocular pressure (IOP), anti-glaucoma medications (AGM), needling, and subsequent non-needling glaucoma surgeries were noted for each patient. Outcomes were examined at 6 and 12 months (m) postoperatively. Success was defined as having no subsequent glaucoma surgery, IOP < 18 and IOP reduction of >20% from pre-op at each respective visit, with (qualified success) or without (complete success) anti-glaucoma medications (AGM). Advanced patient age was defined as >84 years.

Results

162 eyes met inclusion criteria (mean age 74, 59% female, 17% >84 years). Qualified/complete success was 53%/31% at 12m using the stringent success criteria. 27% and 20% required needling or subsequent glaucoma surgery, respectively. Mean IOP was 24.3 ± 8.2 at baseline and 15.9 ± 4.3 at 12m. Mean number of AGM was 3.0 ± 1.1 at baseline, and 1.2 ± 1.4 at 12m. Lower rates of subsequent surgery (14% vs. 22%) and needling (14% vs. 30%) were observed for patients aged >84, but this was not statistically significant. Men had a greater rate of subsequent surgery (29% vs. 15%, $p=0.029$). We did not identify significant differences in IOP reduction or success by gender or age cohort.

Conclusion

Demographics assessed were not associated with surgical outcomes, with the exception of gender. Males had a higher rate of additional surgery. Needling/additional surgery rates were lower in the advanced age group, although not statistically significant. Further research is warranted to better understand the effect of demographics on XEN outcomes.