

Rethinking XEN Technique



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Early Outcomes of Semi-open Subtenon *ab interno* insertion of XEN stent compared to standard technique

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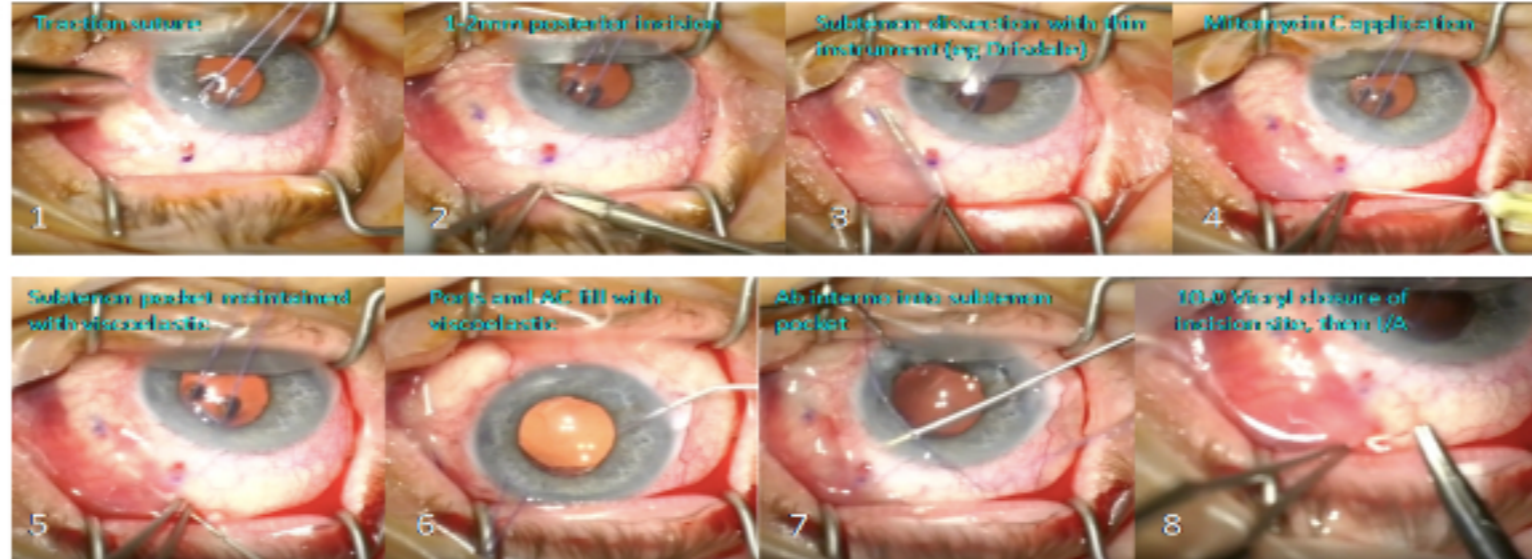
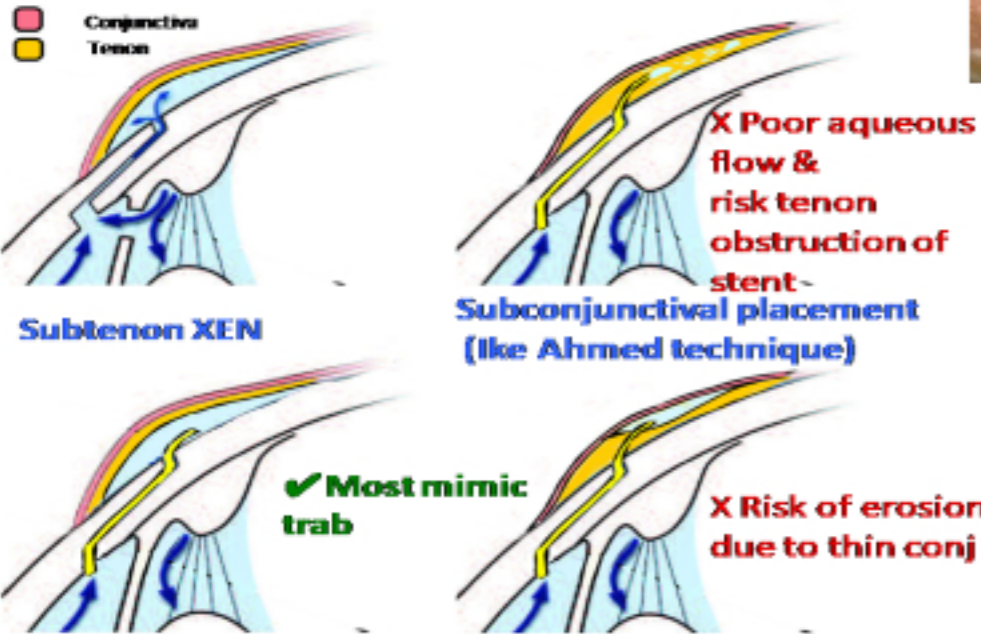
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AIM

XEN stent (Allergan Inc.) has previously been reported to have similar surgical outcome to Trabeculectomy (1). However real-world experience of standard XEN *ab interno* technique found high rates of needling and revision. Semi-open *ab interno* technique aims to: (1) ensure subtenon placement, (2) achieve subtenon dissection, (3) avoid erosion through conjunctiva, (4) avoid anterior bleb leak, (5) more consistent outcomes.

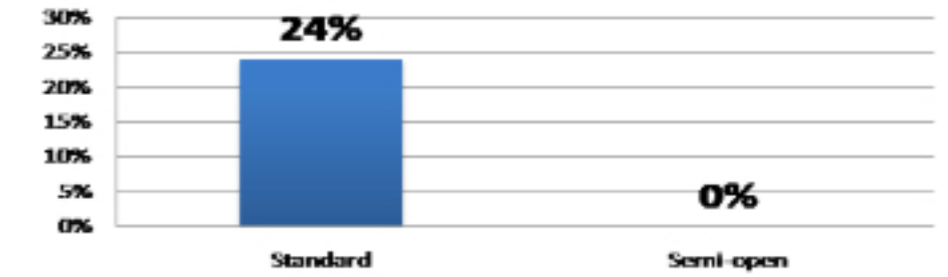
Trabeculectomy

Standard XEN technique



Video available at <https://youtu.be/1Vbky74IHGo>

Bleb revision rate (return to theatre within 6 months)

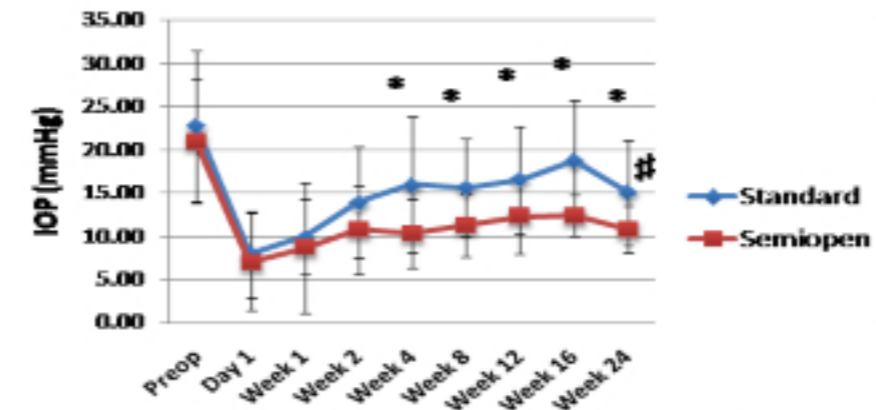
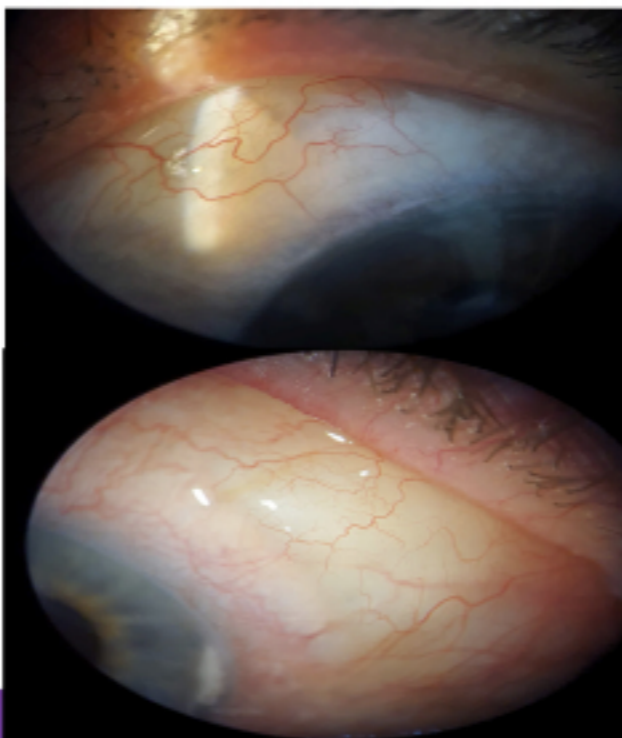


Complications (6 months)	Standard n=25	Semi-open n=44
Stent erosion	2 (8%)	0 (0%)
Transient choroidal effusion	4 (16%)	9 (20%)
AC reformation	0 (0%)	0 (0%)

RESULTS

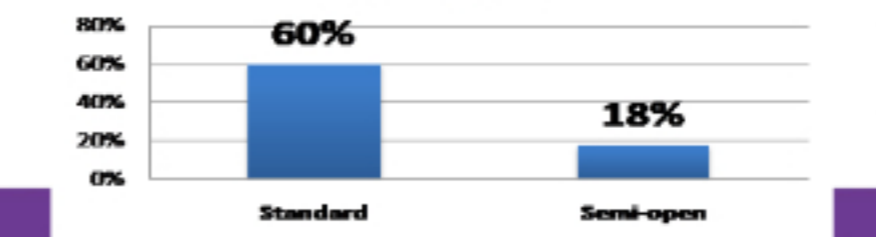
Semi-open XEN produces more diffuse, well-formed "Trab like" blebs.

Semi-open XEN show significantly lower IOP and needling rate compared to standard technique



IOP in Standard group dipped after 24 weeks due to 5 Bleb Revisions between 4-6 months, removing them from analysis * P < 0.05

Needling rate



CONCLUSION

Early outcomes showed Semi-open XEN achieves lower IOP compared to Standard technique with lower needling and revision rates. Longer term study is required to confirm findings.

BIBLIOGRAPHY

(1) Schlenker MB, et al. *Efficacy, Safety, and Risk Factors for Failure of Standalone Ab Interno Gelatin Microstent Implantation versus Standalone Trabeculectomy.* Ophthalmology. 2017 Nov;124(11):1579-1588.

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METHODS

Retrospective analysis of Semi-open (n=44) and Standard technique (n=25) was performed. All cases received subconjunctival injection of mitomycin C (0.01-0.02%). Data in the first 6 months analysed.