Short-Term Outcomes with a Porous Plate Valved Glaucoma Implant

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Financial Disclosures

• The authors have no financial interest in the subject matter of this e-poster



Porous Plate Valved Glaucoma Implant

- Manufactured as Ahmed Glaucoma Valve, Model M4 (New World Medical, Inc., Rancho Cucamonga, CA, USA)
- Porous plate may allow for lower postoperative bleb profile and reduced rate of bleb fibrosis





Purpose

 To study the short-term safety and efficacy of porous plate valved glaucoma drainage implant (GDI) surgery in glaucomatous individuals.



Methods

• This study was approved by the University of Illinois at Chicago institutional review board

 Retrospective medical record review of all patients undergoing porous plate valved GDI surgery at a single tertiary care eye center



Methods

- Exclusion criteria: < 30 days follow-up, glaucoma surgery combined with keratoprosthesis implantation
- Primary outcome: Postoperative IOP
- Secondary outcomes: Visual acuity, use of supplemental medical therapy, complications, and incidence of hypertensive phase



Results

 Thirty-two eyes underwent porous plate valved GDI surgery

 Nine eyes excluded due to inadequate followup (n=7) or combined keratoprosthesis surgery (n=2)



Results

• Mean follow-up time = 82 <u>+</u> 38 days

Outcome	Pre-operative	Post-operative	P-value
IOP (mm Hg)	26.2 <u>+</u> 10.8	17 <u>+</u> 3.8	<.001
# Meds	2.9 <u>+</u> 1.2	1.3 <u>+</u> 1.4	<.001



Results

 Four eyes (18%) with vision loss > 2 Snellen lines

 Eight eyes (36.3%) experienced hypertensive phase at 74 <u>+</u> 26 days postoperatively.

 Complications: hyphema (n=1), aqueous misdirection (n=1)



Conclusions

 The porous plate valved glaucoma implant is effective in the short-term IOP-lowering of glaucomatous patients.

• The potential for a hypertensive phase requires close monitoring for possible re-institution of adjunctive medical therapy.



References

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