Comparison of Mitomycin-C use as an adjunctive therapy in Baerveldt tube surgery

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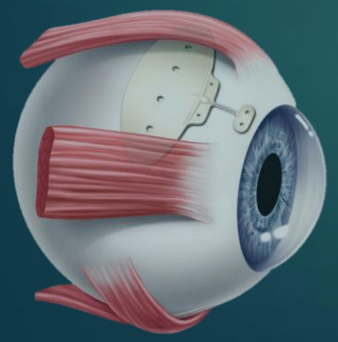
PURPOSE

To investigate the outcomes of glaucoma patients undergoing Baerveldt tube surgery with and without Mitomycin-C (MMC)

METHODS

- Retrospective, single centre analysis of 24 consecutive patients who underwent Baerveldt tube surgery
- The decision to use MMC was the surgeon's choice and involved subconjunctival application of sponges soaked in 0.4mg/ml MMC for 5 minutes



BASELINE DEMOGRAPHICS

	Total (24 eyes)	MMC (14 eyes)	Non-MMC (10 eyes)
Mean age (years)	64.6	65.6	62.1
Mean follow-up (months)	9.9	9.2	10.8
% with POAG diagnosis	80	70	90
% with prior glaucoma surgery	37.5	50	20

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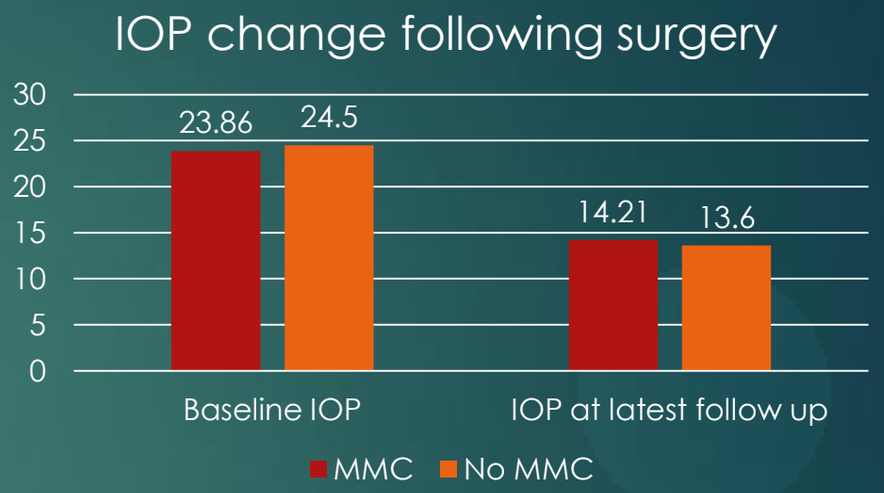
RESULTS

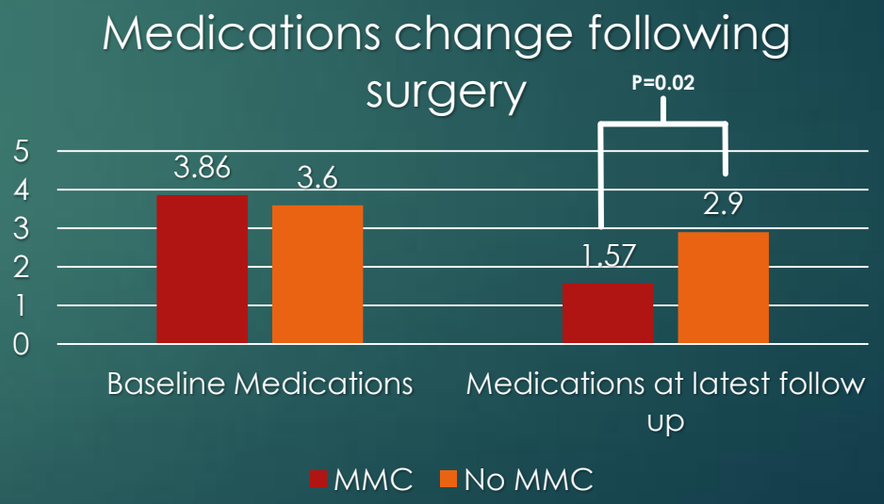
Change in mean IOP (mmHg):
- MMC: 40% reduction in mean IOP (p<0.005)
- Non-MMC: 44% reduction in mean IOP (p=0.01)

Change in number of IOP lowering medications:
- MMC: 60% reduction (3.9 to 1.5) (p<0.005)
  - 29% drop free post-op (p=0.265 vs non-MMC)
- Non-MMC: 19% reduction (3.6 to 2.9) (p=0.1)
  - 0% drop free post-op

Failure rates:
- MMC = 14%
- Non-MMC = 30% (p=0.632)

Complications:
1 Case of early hypotony in MMC group resolved with extra ligation suture





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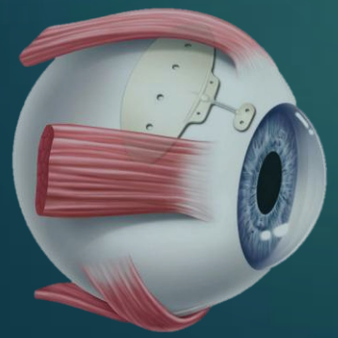
CONCLUSIONS

- IOP reduction was similar and statistically significant in both MMC and Non-MMC groups
- Only the MMC group had a statistically significant reduction in the number of medications post-operatively and required significantly fewer medications at latest follow-up
- Significantly more patients in the MMC group were drop free at latest follow up
- Complication rates were low in both groups

Adjunctive MMC use resulted in a similar post-operative IOP but with significantly fewer IOP lowering medications. This was achieved in patients with a higher proportion of secondary glaucomas and previous glaucoma surgery.



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