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## Needling augmented with topical application of Mitomycin C for management of bleb failure

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### Abstract

**Purpose:** In order to study the effect of topical application of mitomycin C on enhancing the efficacy of needling in the management of bleb failure.

**Patients and Methods:** Thirty six eyes of 32 consecutive patients with an intraocular pressure (IOP) over 21 mmHg; without bleb or with a thick, flat bleb after the second postoperative month following trabeculectomy were included in the study

Needling with mitomycin C was performed in the other 18 eyes with bleb failure (group A) and Needling without antimetabolite was performed in 18 eyes (group B).

Topical application of mitomycin C (0.4 mg/ml) with a microsponge over the conjunctiva at the failed belb for 5 minutes (group A), after irrigation, needling procedure was the same in both groups, a 30- gauge needle was used to perforate the area of subconjunctival and subscleral fibrosis and re-establish flow, conjunctival puncture was at least 7 mm away from the bleb and no sutures was taken.

Follow up were done for one year after needling.

**Results:**Overall, 55 needling procedures were done , needling was done twice in 17 eyes in group B while only 2 eyes needed more than one needling procedure in group A, the difference was statistically highly significant, the mean follow-up was 8.9 +/- 3.7 months.

Mean IOP was 28.9+/-4.2 mmHg, 27.8+/-4.7 mmHg in group A and group B respectively before any intervention and decreased to a mean 19.8+/-2.7mmHg, 20.5+/- 4.8mmHg respectively without medication after 6 months of last needling.

Complications included, diffuse corneal punctate epitheliopathy lasting for 2-3 weeks (2eyes in group A), subconjunctival hemorrhage (3 eyes in each group) and hyphema (2 eyes in each groups).

**Conclusion:** Topical application of Mitomycin C with needle revision appears to be an extremely effective way to revive failed filtration surgery. The incidence of complications related to mitomycin C was minimal.