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## Needle revision of different types of failed filtering blebs

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**Statement of the Problem:** For the first time, bleb needling revision was described in 1941 by H Ferrer who dissected and separated fibrous conjunctiva with a spatula. In 1985, J Pederson and S Smith reported on a needling revision of encapsulated blebs, a procedure which IOP-lowering efficacy was 69%. The very first indication for needling revision was high IOP in the early post-op period. Fitzgerald and McCarthy recommend bleb needling revision for IOP lowering in the early post-op period when conjunctival adhesion to the sclera is incomplete. Other authors recommend needling revision when wound healing is complete and bleb is absent or flat. Currently, there are no published comparative data on the efficacy of this type of needling revision.

**Methodology & Theoretical Orientation:** Bleb needling was performed in 3 groups: cystic blebs (n=50), encapsulated blebs (n=50) and 30 absent blebs but with the OCT-detected fluid under the scleral flap. Tonometry was performed after 1 hour, 1 day, 1 week, 1, 3, and 6 months. In case of insufficient efficacy 1 week after needling, the procedure was repeated up to 3 times, then, if necessary, local hypotensive therapy was resumed, and in case of low efficacy, the second trabeculectomy was performed.

**Findings:** In cases with cystic blebs, resulting from conjunctival-scleral wound healing, bleb needling restores hypotensive efficacy in 100% of cases; in cases with encapsulated blebs - in 74% and in the absence of blebs in the long-term period with the fluid in the subscleral space in 90% in terms of up to 6 months.

**Conclusion & Significance:** The capability of bleb needling as a microinvasive method for restoring the efficacy of trabeculectomy with different types of filtration blebs is shown.

### Notes: