



Bleb encapsulation after trabeculectomy can be successfully treated by using aqueous suppressant treatment for a short period

The Science behind the Tip

Bleb encapsulation may occur 2 to 6 weeks after trabeculectomy, when an elevated, tense, dome-shaped bleb develops with an associated rise in IOP. It is more commonly found after laser trabeculoplasty (incidence of 14.5% - 18.5%)¹.

While it is common practice to needle the bleb and inject 5-fluorouracil, a 2012 Cochrane review of the treatment of encapsulated blebs concluded that needling does not provide better results than conservative treatment². In a study using aqueous suppressants, all eyes responded successfully after a median period of 8 weeks³. These results support an earlier study, where all patients treated conservatively achieved long-term IOP control, usually without topical treatment⁴.

One possibility to explain this phenomenon is that by reducing the IOP medically, the bleb wall becomes less compressed and the microscopic collector channels in the bleb wall start to function, leading to a more porous bleb wall⁴. Alternatively, it may simply be a consequence of change in the bleb morphology as part of the natural history of the post surgical period.

References

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- 2) Feyi-Waboso A, Ejere HOD. Needling for encapsulated trabeculectomy filtering blebs. *Cochrane Database and Systemic Reviews* 2012; 8. Art No: CD 003658. DOI: 10.1002/14651858
- 3) Costa VP, Correa MM, Kara-Jose N. Needling versus medical treatment in encapsulated blebs. *Ophthalmology* 1997; 104: 1215-20
- 4) Scott DR, Quigley HA. Medical management of a high bleb phase after trabeculectomies. *Ophthalmology* 1988; 1169-1173.