Fibrosis suppression therapy in failed filtering blebs after trabeculectomy: early results
Tümay Örsel¹, Umut Duygu Uzunel¹, Berna Yüce², Serkan Piskin³, Tuncay Küsbeci¹
¹Department of Ophthalmology, Bozyaka Education and Research Hospital, Izmir - Turkey
²Department of Ophthalmology, Duzici Government Hospital, Osmaniye - Turkey
³Department of Ophthalmology, Mediguven Hospital, Manisa - Turkey

Purpose: To evaluate the efficacy of anti-inflammatory fibrosis suppression treatment in patients with early failed filtering blebs after trabeculectomy.

Methods: Twenty two of 67 patients who underwent anti-inflammatory fibrosis suppression therapy (prednisone 12 mg/day, colchicine 1.5 mg/day and tiaprofenic acid 900 mg/day in 3 doses) because of early bleb failure after trabeculectomy and scored under 6 according to Indiana Bleb Appearance Grading Scale (IBAGS) were included in the study. Preoperative and postoperative IOP measurements and bleb scores of them were examined retrospectively at 1-2-3 and 4th weeks.

Results: Eight (%36.4) were female and 14 (%63.6) were male of the 22 patients with filtering bleb failure after MMC-TE. Mean age was 33 ± 10.3 (28-74) years. Mean preoperative IOP was 27.2 ± 3 (24-22) mmHg. We observed that failure of filtering bleb occurs in mean 3.9 (3-7) postoperative day after TE with MMC, mean IOP at this time was 25.8 ± 4.5 (19-36) mmHg and the mean bleb score (BS) was 3.6 ± 1.1 (2-5) according to IBAGS. Mean IOP was 21.4 ± 3.3 (16-28) mmHg and mean BS was 4 ± 1.4 (1-8) at 1st week under fibrosis suppression treatment. Mean IOP was 17.5 ± 3.9 (10-28) mmHg and mean BS was 7.6 ± 2.2 (4-12) at 2nd week under fibrous suppression treatment. Mean IOP was 17.2 ± 3.9 (12-26) mmHg and mean BS was 8.4 ± 2.3 (4-12) at 3rd week under fibrosis suppression treatment. Mean IOP was 17.5 ± 4.7 (12-28) mmHg and mean BS was 8.4 ± 2.5 (4-12) at 4th week under fibrosis suppression treatment. There was statistically significant difference between IOP values at 1st, 2nd, 3rd, 4th weeks and before suppression treatment (respectively, p = 0.001, p = 0.000, p = 0.000, p = 0.000). We did not determine any statistically significant difference between pretreatment period and 1st week of treatment with regard to BS (p = 0.406). Bleb scores of pretreatment period were significantly different from 2nd, 3rd and 4th weeks scores (respectively, p = 0.000, p = 0.000, p = 0.000). IOP decrease and bleb modulation was highly correlated at 2nd, 3rd and 4th weeks (respectively; r = 0.729, p = 0.000; r = 0.751, p = 0.000; r = 0.864, p = 0.000).

Conclusions: Conjunctival and episcleral fibrosis has remarkable effect on the prolonged success of trabeculectomy procedures. We achieved significant success on IOP control with peroral anti-inflammatory treatment in early postoperative period, so we need not to use invasive treatment modalities and did not encounter with the complications of these invasive interventions in our study.