ABSTRACT

TRIAMCINOLONE ACETONIDE EFFECT ON THE EXPRESSION OF TGF-β AFTER TRABECULECTOMY (EXPERIMENTAL STUDY ON ORYCTOLAGUS CUNICULUS)

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Objective: to examine the effect of triamcinolone acetonide injection to the expression of TGF-β after trabeculectomy procedure

Method: This was a true experimental study using 22 eyes of 11 New Zealand White Rabbit eye treated by trabeculectomy procedure with eleven eye as the treatment group using Triamcinolone Acetonide (TCA) and 11 eyes as a control group using Balanced Saline Solution (BSS). It was injected into the bleb right after the trabeculectomy. At the end of the study all rabbits in each groups was sacrificed, the eye was enucleated and the bleb area was dissected, and then processed for histological studies. Expression of TGF-β was evaluated using a immunohistochemistry methode at day 7 after the eyes was done for the trabeculectomy procedure.

Result: Expression of TGF-β in control group was 3 eyes (30%) for moderate staining, 7 eyes (70%) for strong staining, whereas the expression of TGF-β in the treatment group was 1 eye (10%) no staining, 3 eyes (30%) for weak staining, 6 eyes (60%) for moderate staining. The result shows there was statistically significant difference between the two groups (p=0.001).

Conclusion: In this study the intrableb TCA injection after trabeculectomy reduce the expression of TGF-β compared with intrableb BSS injection only, thus it is potential in preventing subconjunctival fibrosis after trabeculectomy

Keyword: Triamcinolone acetonide, TGF-β, Trabeculectomy