

Interleukin 10 inhibits inflammatory cells infiltration in endotoxin-induced uveitis

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Background: Endotoxin-induced uveitis (EIU) is a model for acute anterior uveitis associated with a variety of pro-inflammatory cytokines and nitric oxide production. Interleukin 10 (IL-10) down-regulates these inflammatory mediators. We report a study of the effect of systemic administration of IL-10 on the inflammatory parameters of EIU.

Methods: Uveitis was induced in C3H/HeN mice by subcutaneous injection of 200 µg lipopolysaccharide (LPS) per mouse. Intraocular inflammation was assessed by leukocyte count and measurement of the protein concentration in the aqueous humor (AH). Mouse recombinant IL-10 at 1000 U or its vehicle alone were administered by three

intravenous injections given 4.0 h and 0.5 h before and 8.0 h after LPS injection.

Results: The inflammatory cell infiltration in the eyes was significantly reduced in four of five experiments from 40% to 64% in the groups treated with IL-10 compared to the control groups ($P < 0.05$). In contrast, the level of protein exudation in the anterior chamber (AC) was not significantly affected by IL-10 treatment.

Conclusion: IL-10 reduces the cellular infiltration in the ocular inflammation produced by endotoxin. This result suggests potential usefulness for IL-10 in the treatment of severe anterior uveitis with a strong cellular component.

CLINICAL STUDIES

Late bleb leakage after trabeculectomy with 5-fluorouracil or mitomycin C
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ABSTRACT - RÉSUMÉ

Objective: To determine the prevalence of late filtering bleb leakage after trabeculectomy performed with intraoperative adjunctive use of 5-fluorouracil (5-FU) or mitomycin C.

Design: Case series.

Setting: Private clinic in São Paulo.

Patients: Forty-seven consecutive patients (47 eyes) who had previously undergone trabeculectomy with intraoperative application of either 5-FU (25 mg/ml) or mitomycin C (0.2 mg/ml) and who had functioning filtering blebs. The patients who received 5-FU had advanced primary open-angle glaucoma without previous surgery; those who received mitomycin C had either previous failed filtering surgery or refractory glaucoma. All patients had been followed for at least 6 months.

Outcome measures: Slit-lamp appearance of bleb, bleb leakage, as determined with the Seidel test.

Results: None of the eyes had spontaneous bleb leakage. Ten (32.2%) of the 31 eyes that received 5-FU and 5 (31.2%) of the 16 eyes that received mitomycin C had induced bleb leakage. Thirty filtering blebs were classified as transparent, 10 as vascularized and 7 as ischemic. The rates of bleb leakage for the three groups were 46.7%, 0% and 14.3% respectively ($p = 0.012$).

Conclusions: The importance of late bleb leakage in patients who receive intraoperative 5-FU or mitomycin C in predisposing these eyes to late complications, such as endophthalmitis and hypotony, needs to be evaluated.

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