

Publication

## Adrenaline-induced chronic ocular hypertension in adult rabbits

### JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

**ID** 1194167

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**Year** 2009

**Title** Adrenaline-induced chronic ocular hypertension in adult rabbits

**Journal** Klinische Monatsblätter für Augenheilkunde

**Volume** 226

**Number** 4

**Pages / Article-Number** 332-6

**Keywords** glaucoma, animal model, rabbit

**BACKGROUND:** The aim of this study was to develop a new animal model to enhance our understanding of the biological pathomechanisms involved in glaucoma. **MATERIALS AND METHODS:** Forty white giant rabbits were divided into a treated (N = 30) and a control group (N = 10). Boli of adrenaline hydrochloride (0.1 mL 0.1% solution) were repeatedly injected into the veins of the ears of the rabbits and physiological saline in the control group, respectively, for three months. Intraocular pressure (IOP) and outflow facility of the aqueous humour were measured prior to, during and after treatment (4-6 months, 7-9 months, 10-12 months). **RESULTS:** In comparison to the control group, the adrenaline-treated group showed a significant increase in IOP both during treatment (25%) and 12 months after treatment (57%). Comparative analysis further showed that the aqueous humour outflow facility of the treated group increased by 16.5% during the treatment, and showed a continuous decrease of 60 % after treatment. **CONCLUSION:** This rabbit model could be useful for further investigations of the pathomechanisms involved in glaucoma.

**Publisher** Thieme

**ISSN/ISBN** 0023-2165

**edoc-URL** <http://edoc.unibas.ch/dok/A5252352>

**Full Text on edoc** No;

**Digital Object Identifier DOI** 10.1055/s-0028-1109310

**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/19384793>

**ISI-Number** WOS:000265747900026

**Document type (ISI)** Article