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Service (sector) Glaucoma N° CEP 300/01

Quantitation and analysis of the protein contents of the aqueous humor in primary congenital glaucoma patients.

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(maximum 6): Marcus Vinícius de Nigro Corpa, Marcia Tartarella, Adriana Carmona, Mariana Karaoglanovic Carmona, Marcelo Costa de Oliveira, Ivan Maynard Tavares. **Purpose:** To evaluate the protein contents of the aqueous fluid of primary congenital glaucoma patients.

Methods: Only patients with confirmed diagnosis of Primary congenital glaucoma (PCG) were considered eligible for study. The control group was composed of patients with congenital cataract (CC). Just patients fulfilling the criteria for surgical treatment, and with no prior surgical procedures in the affected eye were included. The study population consisted of 10 patients with PCG and 8 patients with CC. Trabeculotomy was the surgical procedure performed in all the PCG patients. The samples consisted of 50mL to 100mL of aqueous fluid, obtained through aspiration just before the beginning of surgery. The samples were further placed in Eppendorf tubes containing 1mL of PSFD protein conserving solution and stored at a -70°C temperature. The protein analysis was carried out in polyacrilamide gel electrophoresis, with further sequencing using a Shimatzu PPSQ-23 protein sequencer. **Results:** The analysis disclosed higher protein content in the PCG group, with a striking predominance of albumin. Such finding was not observed in any case of congenital cataract. **Conclusions:** There was a higher protein content in PCG patients, compared with CC patients. Such finding is a possible factor involved in the pathogenesis of the elevation of intraocular pressure in these patients.