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## Washout of pseudoexfoliation material combined with cataract surgery: A new surgical approach to lower intraocular pressure in pseudoexfoliation syndrome

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**Purpose:** Glaucoma or ocular hypertension can be caused by the presence of pseudoexfoliation (PEX) material and/or pigmented cells in the trabecular meshwork (TM) and/or in the irido-corneal angle (ICA). Accumulation of this material can be highlighted by slit lamp (SL), gonioscopy and ultrasoundbiomicroscopy (UBM). Such material prevents aqueous humor from flowing out and thus induces intraocular pressure (IOP) elevation. A new technique using a special cannula for washing the TM and ICA, combined with cataract surgery can lower IOP and reduce the number of hypotensive drugs needed.

**Method:** This study analysed 11 patients (13 eyes) presenting a pseudoexfoliation glaucoma (XFG) with cataract. They all had cataract surgery combined with the special washing technique. Visual acuity and IOP were noted before surgery, just after surgery and during follow-up. The number of hypotensive drugs needed was also recorded. Mean follow-up time was 34.4 months (range: 21.8-59.2). The first case underwent surgery in 2007 and has a 5-year follow-up time. Local status was controlled by SL, gonioscopy and UBM.

**Results:** Mean age was 79 years (range: 71.6-86.0). Mean visual acuity was 0.37 pre-op (range: 0.05-0.6) and 0.89 post-op (range: 0.05-1.0). Mean IOP before and after surgery was 32.8±8.7 mmHg (range 20-53) and 15.1±3.5 mmHg (range 10-20) respectively. The amount of hypotensive drugs needed was 87% lower after surgery. No PEX material recurrence was seen with SL, gonioscopy and UBM during the mean follow-up of 3 years. No complication was recorded in this study.

**Conclusion:** Cataract surgery combined with the new washout technique of the TM and ICA to remove PEX material or pigmented cells significantly lowers IOP and the amount of drugs needed. Long-term follow-up gives good results with no complication or recurrence. Eye status after surgery remains physiological and further glaucoma surgery can be performed if necessary. More research with a higher number of patients should be initiated to confirm this technique.

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