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Service (sector) Glaucoma N° CEP

Influence of trabeculectomy on the anatomical and functional evaluation of glaucoma

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Purpose: To assess the influence of glaucoma filtration surgery on anatomical and functional tests for glaucoma evaluation. **Methods:** Twenty-five eyes of 25 patients with primary open-angle glaucoma were evaluated prospectively with vision acuity, intra-ocular pressure (IOP), standard automated perimetry (SAP), frequency doubling technology perimetry (FDT), scanning laser polarimetry (GDx) and confocal scanning laser ophthalmoscopy (Heidelberg Retina Tomography – HRT II), 1 to 2 months before and 2 to 4 months after surgery. **Results:** Baseline visual acuity did not vary significantly after surgery ($p = 0.346$). Mean pre and postoperative IOP was 20.0 ± 4.4 and 10.96 ± 2.52 mmHg respectively, being this difference statistically significant ($p < 0.001$). Regarding SAP, FDT and GDx results, we did not find significant difference between pre and postoperative mean values. When analyzing HRT variables, we found a significant improvement of Cup Shape Measure (CSM) after surgery ($p = 0.028$): mean pre and postoperative CSM was -0.09 ± 0.08 and -0.12 ± 0.09 , respectively. Any other HRT variable showed statistically significant change. **Conclusions:** A significant improvement of the mean Cup Shape Measure obtained with HRT was detected after glaucoma filtration surgery.