Comparison of Trabeculectomy Outcomes Performed by Residents in Training and Ophthalmologists

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PRCIS: Resident-performed trabeculectomies present higher intraocular pressure and lower complete success rate at 1 year.

PURPOSE: To compare the 1-year outcomes of ab externo trabeculectomy between residents in training and staff ophthalmologists.

PATIENTS AND METHODS: This retrospective study included all consecutive eyes submitted to ab externo trabeculectomy between January 2015 to June 2020. A 1-year complete success rate was considered using all the following criteria: intraocular pressure (IOP) ≤ 21 mm Hg and ≤ 6 mm Hg without ocular hypotensive medications; IOP ≤ 15 mm Hg without ocular hypotensive medications for 4 months; no loss of light perception; no phthisis bulbi; and no further glaucoma surgery (excluding suture lysis and bleb needling).

RESULTS: One hundred and ten eyes from 99 patients were included. Thirty percent (n=33) of the trabeculectomies were performed by residents. There were no significant preoperative differences between groups, apart from age at surgery, which was higher in the residents' group (72.39±6.83 vs. 62.00±15.07 years, P=0.02). There were no significant differences in IOP control or complete success rates between residents and staff ophthalmologists. However, the residents had significantly higher postoperative IOP levels compared to staff ophthalmologists (P<0.01).

CONCLUSIONS: Resident-performed trabeculectomies present significantly higher postoperative IOP levels and a lower complete success rate when compared with staff ophthalmologists. It is, therefore, fundamental to adopt strategies to change this gap, improve patient safety, and strengthen resident confidence.

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