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Service (sector) Glaucoma Nº CEP

### **Limbus – based Versus Fornix – based Conjunctival Flaps in Trabeculectomy, Efficacy and Complication**

Caio Vinicius Saito Regatieri, Vanessa Miroski Gerente, Sérgio Henrique Teixeira, Augusto Paranhos Junior **Purpose:** Trabeculectomy is the most common glaucoma filtering surgery. It can be performed by 2 ways of conjunctival flaps: limbus and fornix based. The success rate and complications using fornix or limbus based (FB and LB) trabeculectomy performed by second year medical residents were studied. **Methods:** Prospective randomized trial. Glaucomatous patients with trabeculectomy indication, which would be performed by supervised second year residents, were selected in the glaucoma section of Federal University of São Paulo. At the beginning of the surgery the conjunctival dissection technique was randomly chosen. The outcomes were: intraocular pressure (IOP) and complications. Covariates were: age, race, past medical history, and medication in use. Success criteria were IOP  $\leq 18$  mmHg or more than 30% of IOP reduction without medication (criteria 1), and IOP  $\leq 18$  mmHg or more than 30% of IOP reduction with maximum 2 medications (criteria 2). **Results:** We studied 35 surgeries: 20 FB (57.1%) and 15 LB (42.9%). In FB group, patients had average age of 61, 5 years; 11(55%) were women and 9 (45%) men; 10 (50%) were white, 5 (25%) latin and 5 (25%) black; 7 (35%) patients were diabetic and 12 (60%) had hypertension. In LB group, patients had average age of 64.6 years; 9 (60%) were women and 6 (40%) men; 6 (40%) were white, 2 (13%) latin and 7 (46, 3%) black; no patient was diabetic and 8 (53, 3%) had hypertension. The mean follow up was 49.5 days. Complications were classified in early (within the first week) and late (after 7 days). Early complications were: seidel (40% FB and 13.3% LB), athalamia (0% FB and 13.3 LB), choroidal detachment (15% FB and 13.3% LB), hypotony (55% FB and 46.7% LB), hyphema (10% FB and 6.7% LB) and there was no case of cataract evolution or encysted bleb. Late complications were: hypotony (55% FB and 20% LB), seidel (25% FB and 0% LB), choroidal detachment (15% FB and 13.3 % LB), encysted bleb (10% FB and 0% LB), hyphema (13% FB and 0 % LB), cataract evolution (0% and 6.7 % LB) and there was no case severe anterior chamber shallowing. In FB 80% of patients met criteria 1, 85 % criteria 2 and 3 (15%) requires reoperation. In LB group 93, 3 % of patients met criteria 1, 100% criteria 2 and there was no reoperation case. Survival curves detected a trend towards better results in LB group when compared to FB group. **Conclusion:** Success rate of limbus based trabeculectomy was similar to fornix based group. A trend towards LB group concerning efficacy was observed in this preliminary results.