OBJECTIVE: To evaluate by ultrasound biomicroscopy (UBM) the filtering blebs and the outcome of trabeculectomy performed with two different concentrations of mitomycin c (MMC).

METHODS: The study included 46 eyes from 46 patients diagnosed with primary-open angle glaucoma which underwent trabeculectomy with two different doses of MMC. Patients received an intraoperative dose of either 0.2 \((n=25)\) or 0.4 \((n=21)\) mg/ml MMC for 2 minutes. UBM was used to study the filtering blebs (height and reflectivity) and the visibility of the drainage route under the scleral flap. Intraocular pressure (IOP) was also measured. Patients were examined 2 days before surgery and 3 and 6 months after surgery.

RESULTS: Filtering blebs were higher, intrableb reflectivities lower and intraocular pressures (IOPs) lower in the group receiving 0.4 MMC. However, differences were not statistically significant. Surgical failure was observed in 7 cases: in 5 cases, 4 from the 0.2 MMC group and 1 from the 0.4 MMC group, a flat bleb with an invisible route under the scleral flap was observed. The 2 other failures belonged to the 0.4 MMC group: one eye had an encapsulated bleb and the other one developed an iris incarceration into the internal sclerostomy site.

CONCLUSION: There was a trend for patients treated with high dose MMC trabeculectomy to have higher blebs, lower intrableb reflectivities and lower IOPs compared to those treated with low dose MMC, although this was not statistically significant. Surgical success rates were similar between both groups.