Purpose: To compare the effects of tamsulosin and alfuzosin on iris morphology evaluated by ultrasound biomicroscopy (UBM).

Methods: 48 consecutive male patients taking tamsulosin or alfuzosin were enrolled. Groups 1, 2, 3 comprised 16 patients treated with tamsulosin, 14 patients treated with alfuzosin, and 18 untreated controls, respectively. All patients underwent UBM examination. Iris thickness (IT) measurements were obtained between the pupillary margin and the temporal periphery of the iris. IT was measured in: dilator muscle region (DMR; measured at half of the distance between the scleral spur and the pupillary margin) and sphincter muscle region (SMR; standardized at 0.75 mm from the pupillary margin). Correlations between mean DMR/SMR values and mean duration of treatments (MDTs) in Groups 1-2 were evaluated.

Results: MDTs were comparable (p: 0.521). Mean ITs in the DMR were 353±31.09 µ, 363.12±10.43 µ, 401.47±49.31 µ in Groups 1, 2, 3. Mean ITs in Groups 1-2 were significantly lower than that of controls (Group 3) whereas there was no significant difference between Groups 1 and 2 (p: 0.041, p: 0.039 and 0.986, respectively). Similarly, mean DMR/SMR values were significantly measured to be lower in Groups 1-2 than that of Group 3 (p: 0.040 and p: 0.040, respectively). Mean DMR/SMR values were comparable in treatment groups (p: 0.409). There were negative correlations between MDTs and DMR/SMR values in Groups 1-2 (p: 0.061, r: 0.290; p: 0.057, r: 0.310, respectively).

Conclusions: Although tamsulosin is a leading cause of intraoperative floppy iris, iris morphologic changes detected by UBM secondary to tamsulosin and alfuzosin use, seems to be comparable.