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Additive Effect of Topical Nepafenac on Mydriasis in Patients With Diabetes Mellitus.

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Abstract

OBJECTIVES: To evaluate the additive effect of topical nepafenac on pupil diameter (PD) in patients with diabetes mellitus (DM) and cataract.

METHODS: This prospective comparative study included the patients having cataract surgery with and without DM. Two consecutive PD measurements were taken using an automatic quantitative pupillometry system (MonPack One, Metrovision). A baseline measurement was taken, then one drop of nepafenac % 0.1 (Nevanac; Alcon, Fort Worth, TX) was instilled only to the eye that will be operated on (study eye). Cyclopentolate 1.0% (Siklopleji̇n; Abdi İbrahim, İstanbul, Turkey) was instilled to both eyes (study eye/fellow eye) 5 minutes later. The second measurement was taken at 1 hour after this application.

RESULTS: The DM group consisted of 43 patients, and the control group consisted of 39 participants. The baseline PDs of both eyes were similar in the DM group (P=0.070) and the control group (P=0.345). The change in pupil size from baseline to mydriasis was statistically significantly greater in the study eyes (2.69±0.53) than fellow eyes (2.54±0.61) in the DM group (P=0.009), but there was no statistically significant difference in the control group (2.94±0.63 vs. 2.86±0.58). When the groups were compared, the PD changes were similar in the study eyes between groups (P=0.065), while the PD changes in the fellow eyes were lower in the DM group (P=0.017).

CONCLUSIONS: Nepafenac has been shown additive effect on pupil dilation in diabetic patients before cataract surgery.

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