

Incidence of Complications and Associated Factors after Primary Trabeculectomy in Chiang Mai University Hospital

Preeyanuch Khunsongkiet*, MD, Thidarat Leeungurasatien, MD,
Damrong Wiwatwongwana, MD, Linda Hansapinyo, MD, Kessara Pathanapitoon, MD, PhD
*Department of Ophthalmology,
Faculty of Medicine, Chiang Mai University*

Objective: To determine the incidence of early postoperative complications and associated factors after primary trabeculectomy in Thai glaucoma patients in Chiang Mai University Hospital.

Methods: This was a combined prospective and retrospective observational study of all glaucoma patients who underwent primary trabeculectomy with mitomycin C (MMC) using fornix-based conjunctival flap technique between December, 2011 and May, 2013. Surgical complications during the first 3 months of follow-up were recorded and associated risk factors were analyzed.

Results: One-hundred and eighteen eyes of 118 patients were included. Early postoperative complications were developed in 60 eyes (60.6%). There were hypotony (26 eyes, 27.2%), serous choroidal detachment (14 eyes, 15.6%), subconjunctival hemorrhage (12 eyes, 13.0%), hyphema (11 eyes, 12.4%), leaking bleb (8 eyes, 8.8%), aqueous misdirection (2 eyes, 2.2%), encapsulated bleb (2 eyes, 2.2%), corneal epithelial defect (1 eyes, 1.1%) and vitreous hemorrhage (1 eyes, 1.1%). Neither endophthalmitis nor blebitis was found; however, one patient had no light perception after the surgery. Hypotony was associated with serous choroidal detachment ($P = 0.017$) and hyphema was typical in neovascular glaucoma (NVG) patients ($P = 0.014$). The failure of trabeculectomy was common in the patients with high blood pressure ($P = 0.028$). NVG was not associated with the increase rate of surgical failure ($P = 0.070$).

Conclusion: The incidence of early complications after first-time trabeculectomy with MMC was high (60.6%) in this Thai clinic setting, but most were transient and self-limiting conditions. The correlations between hypotony and choroidal detachment as well as hyphema and NVG were compatible with previous studies. Further research is needed whether hypertension is a risk factor for early failure.