

Abstract

Background : Glaucoma ranks the third highest of blindness after cataract and refraction abnormality in Indonesia. Approximately, people with glaucoma will increase from 60 million to 110 million in 2040. Diabetes mellitus is one of the risk factors of glaucoma. The highest prevalence of diabetes is in Yogyakarta.

Objective : The objective of this study was to find the relation between diabetes mellitus as a risk factor to develop glaucoma.

Methods : A retrospective review with cross sectional design of 83 medical records of glaucoma patient whom get treated in PKU Muhammadiyah 1 Yogyakarta in period of 2012-2015 was obtained. The samples are taken by purposive sampling based on inclusion and exclusion criteria. Chi Square Test is used as statistical analytic test with statistic significance was indicated by $p < 0,05$.

Results : No statistically significant correlation found in diabetes mellitus probability risk factor to develop *primary open angle glaucoma* (POAG) $p = 0,729$ ($p < 0,05$), *primary closed angle glaucoma* (PCAG) $p = 0,176$ ($p < 0,05$) and intraocular pressure (IOP) $p = 0,216$ ($p < 0,05$).

Conclusion : Therefore, it can be concluded that diabetes mellitus wasn't one of the risk factors of glaucoma in PKU Muhammadiyah 1 Yogyakarta.

Keywords : glaucoma, diabetes melitus, POAG, PCAG, IOP

