

## ABSTRACT

*Cataract is considered a major cause of blindness in developed and developing country. Incidence and progression of cataract is elevated in patients with diabetes mellitus. The association between diabetes mellitus and cataract formation has been shown in clinical epidemiology and research. The aim of this research is to know the difference of cataract subtype in cataract patient with diabetes mellitus and non-diabetes mellitus.*

*The subjects of this research are divided into two groups, group 1 as trial group which consists of 36 eyes of cataract patients with diabetes mellitus while group 2 as control group consists of 36 eyes of cataract patients without diabetes mellitus. The subtype of cataract from both groups was examined by ophthalmologist. Subsequently, the data is tested with Chi Square Test.*

*From 72 total eyes, there are 29 eyes (80,6%) of cataract patients without diabetes mellitus have nuclear cataract subtype. There are 7 eyes (19,4%) of cataract patients without diabetes mellitus have cortical cataract subtype. There are 4 eyes (11,1%) of cataract patients with diabetes mellitus have nuclear cataract subtype. There are 32 eyes (88,9%) of cataract patients with diabetes mellitus have cortical cataract subtype. Statistic result of Chi Square Test shows a difference of cataract subtype in cataract patient with diabetes mellitus and non-diabetes mellitus ( $p=0,000$ ). This result is caused by the accumulation of lens sorbitol in diabetic patients which causes osmotic stress, which later causes an extensive swelling and cataract formation of cortical lens fibers.*

*In conclusion, there is a difference of cataract subtype in cataract patient with diabetes mellitus and non-diabetes mellitus.*

**Keywords:** *Cataract subtype, Diabetes Mellitus*