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## Stage of hypertensive retinopathy among patients who undergone cataract surgery in Zamboanga City Medical Center

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**Background:** Individuals who are not known hypertensive are noted to have blurring of vision as an initial presentation. Preventable co-morbidity such as hypertension is essential in saving sight in patients with cataract.

**Objective:** To determine the prevalence of hypertension and stage of hypertensive retinopathy among individuals who undergo cataract surgery and to identify the association between the stage of hypertension and the risk factors for hypertension and the stage of hypertensive retinopathy.

**Methods:** This prospective study included 203 individuals. All of the participants were noted to have mature cataract surgery done and was noted to have followed up at Tzu Chi Eye Center from July 1, 2017 to March 30, 2018. The nature, significance and procedure of the study were explained to every identified respondent. There was only one ophthalmologist who saw the participants who enrolled in the study. Once they understood the study, a written informed consent was taken. They were asked to answer questions provided by the researcher and their laboratory results were recorded. A follow up after 2 weeks was done in order to determine the stage of retinopathy of the patients. Demographic variables, hypertensive retinopathy, history of hypertension, medication usage, compliance, ECG changes, proteinuria, creatinine and cardiomegaly on chest X-ray, radiographic identification of atheromatous aorta and fundoscopic examination were analyzed. The Wong and Mitchell classification and the Keith, Wagner and Barker staging system were used for retinopathy grading.

**Results:** A total of 203 patients (117 men and 86 women) with mature cataract were enrolled in this study, mean age was  $64.33 \pm 9.7$  years. Upon inclusion, 92% are noted with hypertension and 7 out of 10 were noted to have severe hypertension. One out of four patients was newly diagnosed with hypertension. Among previous hypertensives, 21% were not compliant to treatment. The grade of hypertensive retinopathy correlated with duration of illness but did not with severity of hypertension.

**Conclusion:** The American heart association stage of hypertension and the stage of hypertensive retinopathy by Keith, Wagner and Barker has been shown to be directly associated with each other. The grade of hypertensive retinopathy reflects duration and not the severity of hypertension.

**Recommendation:** Although cataract operations are low risk, the current practice of referring these patients for medical evaluation prior to surgery is an excellent opportunity to diagnose new hypertensives and identify noncompliant cases. Initiating appropriate treatment may prevent complications among these elderly patients.

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