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Subject: Ocular ultrasonography for detection of posterior segment pathology in adult patients presenting with blurred vision

Abstract

Background and objective: Ocular posterior segment lesions can affect individuals of both sexes at all ages. Such lesions can lead to serious manifestations such as retinal detachment and retinal hemorrhage which might lead to permanent loss of eyesight. The present study was carried out to determine the association between age and gender and changes in ocular posterior segment based on ultrasonography findings.

Methods: In a prospective cross-sectional study, 50 patients with blurry vision who had been referred from ophthalmology outpatient clinics to the radiology department of Rizgary Teaching Hospital in Erbil (Kurdistan region in Iraq). Required data were collected using a researcher-designed questionnaire, and the patients were examined by using a high resolution 7.5-10 MHz linear array ultrasound transducer. The collected data were analyzed using Chi-square test and Fisher's exact test through SPSS (version 23).

Results: The current study revealed that the most frequent complications associated with ocular posterior segment pathologies were old vitreous hemorrhage72%, posterior vitreous detachment 36%, and retinal detachment 34% of the patients. Diabetes and hypertension were the most frequent diseases associated with ocular posterior segment pathology. A significant association was seen between the patients age with old vitreous hemorrhage (p = 0.003). Significant associations were seen between the patients' medical conditions with old vitreous hemorrhage and retinal detachment. There was no significant correlation between the patients' gender and the studied ocular posterior segment pathologies.

Conclusion: regarding the posterior segment sonographic findings age has a strong correlation with old vitreous hemorrhage, chronic medical conditions such as diabetes and hypertension correlated with old vitreous hemorrhage and retinal detachment.