

Abstract

Effect of diabetes on ocular lens thickness

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Objective: To determine the effect of hyperglycemia on thickness of crystalline lens of eye in diabetic population and its comparison with non-diabetics of same age group.

Study design: Cross sectional observational study.

Participants and Methods: The study was conducted at Railway General Hospital, Rawalpindi. A total 112 patients over a period of six months were included in study. Ocular lens thickness was measured in 56 diabetic patients and 56 non-diabetic controls by using A-scan biometry. Parameters like duration of diabetes and type of medication were recorded.

Results: 112 patients were divided into two groups. In diabetic group (56 patients), most of the patients i.e. (42%) had BSR more than 200 mg/dl. Out of 56 controls, most of the subjects i.e. 54%) had BSR between 70-90mg/dl. Thickness of crystalline lens was in the range of 4.00-6.21 mm with mean of 5.10mm in diabetics and in range of 4.00-4.50mm with mean of 4.16mm in non-diabetic controls.

Conclusion: Thickness of crystalline lens was increased in patients who had diabetes for at least 10 years as compared to normal controls. *Al-Shifa Journal of Ophthalmology 2009; 5(1): 28-34*
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