INTRODUCTION

Diabetic retinopathy is retinopathy (damage to the retina) caused by complications of diabetes mellitus, which could eventually lead to blindness.[1]

Diabetic retinopathy is the cause of blindness in approximately 2.5 million of the estimated 50 million blind people in the world. [2]

Diabetic retinopathy is common to be associated with opaque ocular media as People with diabetes are 60% more likely to develop cataract than non diabetics. People with diabetes also tend to get cataracts at a younger age and have them progress faster.[3] Also approximately 25% of eyes with PDR develop a vitreous haemorrhage within 5 years without laser photocoagulation [4] and when vitreous haemorrhage occurs blood cells adhere to the gel and clearing may take months or years.[5]

In recent years, ophthalmic ultrasound has become an indispensable diagnostic tool that has increased our ability to detect and differentiate many ocular and orbital disorders. [6]

Echography has become the most important method for evaluating an eye with opaque ocular media. It provides an instantaneous "glimpse" into the eye and, in many instances, can yield information not obtainable by any other method. [6]

High resolution B-scan ultrasonography is now utilized to help plan surgical intervention and identify complications associated with diabetic retinopathy.[7]

It is a painless, non-invasive method that can be performed easily in the clinic, at the patient's bedside, or in the operating room. [6]

Furthermore, ultrasound can be readily performed on children, often without sedation. Recent advances in technology have vastly improved the ability of ultrasound to accurately display the small structures and lesions within the eye. Also, the wealth of experience and data that has been accumulated throughout the years provides the echographer with a large reference base that allows accurate and reliable diagnoses. It is important to emphasize, however, that in many cases accurate interpretation of echographic findings is possible only when they are correlated with the history and clinical findings. [8]

AIM OF THE WORK

The aim of this thesis is to study the role of B and A scan ultrasonography in evaluation of the vitreo-retinal interface in diabetic patient suffering from diabetic retinopathy with opaque ocular media.