INTRODUCTION

Optical coherence tomography is a new method for high-resolution, cross-sectional visualization of tissue **(Huang D et al., 1991).**

This noncontact noninvasivc technique uses a low-coherence continuous-wave light source and interferometry for image formation, Differences in time delay of the reflected light from ocular surface are detected by a photodiode followed by signal-procesaing electronics and computer data acquisition. The tomo-graphs are digitally processed after acquisition to compensate for micron-scale axial motion artifacts owing to subject movement or pulsatile blood flow **(Hee MR et al., 1995).**

OCT provides micron-scale axial resolution that is not limited by pupil aperture or ocular aberrations. The temporal coherence properties of the light source determine the resolution; however, lateral eye movement, which is not compensated for by the scan registration algorithm. can degrade the image. Standard third-genera-tion OCT systems using a superluminescent diode light source have an axial resolution of 10 to 15 μm. Prototype uItrahigh-resolution fourth-generation OCT uses a femtosecond laser light source and has achieved an axial resolution of 3μm **(Drexler W et al., 2003).**

Readily available, reproducible, high-resolution cross-sectional imaging of the retina allows diagnosis, monitoring, and quantitative assessment of macular pathology. OCT has become part of the routine imaging performed in patients who have suspected or

known maculr diseases. Viewing the anatomic structure of the vitreoretinal interface, the macular layers, and the RPE and quantifying these areas in microns has led to improved clinical decision making and has altered the management of many cases when the biomicroscopic examination and fluorescein angiogram have been insufficient for detailed discrimination **(Voo et al., 2004).**

AIM OF THE STUDY

This easy aims at reviewing the literature on the (OCT) in macular diseases.