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## MACULAR THICKNESS AND ITS RELATION WITH AGE AND GENDER IN HEALTHY EYES IN A SAMPLE OF IRAQI POPULATION USING CIRRUS-HD OPTICAL COHERENCE TOMOGRAPHY

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Optical coherence tomography (OCT) has been introduced as a useful imaging method by providing high-resolution and cross sectional information about various pathological conditions of macula and has gained increased importance in the diagnosis, management and monitoring of patients with various retinal disorders.

**Purpose of the study:** To provide a normative data for macular thickness in healthy Iraqi eyes using Zeiss cirrus HD-OCT and to determine the effects of age and gender on their measurements.

**Materials and methods:** Two hundred healthy adult volunteers ( $\geq 20$  years) underwent macular cube scanning using Zeiss cirrus-HD OCT. Macular thickness from all 9 regions of the early treatment Diabetic Retinopathy Study map was documented for each subject. Variations in macular thickness by age and gender were determined.

**Results:** The mean age of volunteers was  $37 \pm 10.4$  (range 21-67) years. The mean of central foveal thickness was  $254.6 \pm 17.3$  Mm, the mean macular thickness was  $279.0 \pm 10.7$  Mm and the macular volume was  $10.0 \pm 0.4$  mm<sup>3</sup>. Females were found to have a significantly thinner macula ( $P < 0.001$ ) than males in all 9 ETDRS regions except outer inferior quadrant. Central foveal thickness was found to have very weak correlation with age which was not statistically significant. All other macular regions, mean macular thickness and volume showed statistically significant nonlinear reduction with age ( $p$  value  $< 0.001$ ).

**Conclusion:** This is a normative data for macular thickness in healthy Iraqi eyes using Zeiss cirrus HD-OCT. This will serve as a baseline for diagnosing and treating macular pathologies in Iraqi eyes.



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