Measurement of choroid thickness in pregnant women using enhanced depth imaging optical coherence tomography

Medição da espessura da coroide em gestantes utilizando tomografia de coerência óptica com profundidade de imagem aprimorada

Dear Editor:

We have read with interest the article "Measurement of choroid thickness in pregnant women using enhanced depth imaging optical coherence tomography" by Goktas et al.[1]. The authors investigated the choroidal thickness (CT) at each trimester in healthy pregnant women, and compared these measurements with those of non-pregnant healthy women. They found that the CT increases in the second trimester, and proposed that this choroidal thickening may play a role in the pathophysiology of central serous chorioretinopathy during pregnancy. We thank the authors for their intriguing study and would like to make some suggestions for further CT studies, in view of the following two points:

First, the authors used three points in foveal horizontal section, and separately compared the CT measurements between groups. However, comparing OCT measurements taken at one selected point with each other is not the most precise method for determining choroidal thickness. These measurements, which are performed manually, may be affected by local irregularities of the choroid-scleral boundary. Therefore, to reduce the risk of mistakes, several points in the same horizontal sections of the macula could be measured. The average of these measurements may be compared[2]. On the other hand, availability of automatic software for CT measurements in OCT devices improves the accuracy.

Second, a number of factors may affect CT measurements. These include age, gender, spherical equivalent, diurnal variation, axial length, smoking, coffee addiction, and some disorders such as diabetes mellitus and central serous chorioretinopathy[3-5]. The authors have explained some exclusion criteria to eliminate these potentially confusing factors. However, these criteria did not include all the confusing factors mentioned above. Therefore follow-up studies may be needed to validate the results explained by the authors.

Saban Gonul, Banu Turgurt Ozturk, Suleyman Okudan

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Department of Ophthalmology, Selcuk University Faculty of Medicine, Konya, Turkey.

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Corresponding author: Saban Gonul. Selcuk University Faculty of Medicine, Department of Ophthalmology, Konya, Turkey - E-mail: drsabangonul@gmail.com

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