

Comment on the Article: Choroidal Thickness in Pediatric Populations

Dear Editor,

We read with great interest the article entitled “Choroidal thickness profile in normal Iranian eyes with different refractive status by spectral-domain optical coherence tomography” by Heirani *et al.*¹ and would like to congratulate the authors on their informative study. This is the largest study so far reporting on choroidal thickness (ChT) profile of an Iranian population sample and the first one exhibiting outcomes on Iranian children.

It has been well-established in the literature that ChT progressively decreases during adult life. With regard to childhood populations, however, conflicting evidence exists about the impact of age on ChT, as both physiologic ocular growth and potential development of refractive errors should be accounted for.² In particular, a thinner choroid in 4- to 6-year-olds compared to older pediatric groups has been reported,³ while data from both a longitudinal and another cross-sectional population-based study also showed increased ChT with age in children.^{4,5} On the contrary, Heirani *et al.* describe a decreasing pattern of ChT with age, while other studies have found no significant association. In their Figures 3 and 6, the data are stratified into six age groups, each covering 10 years; however, the exact numerical values of ChT of each group are not reported. Presentation of these data would be of interest, especially in subgroups of pediatric subjects within a narrower age range and categorized according to their refractive condition, so as to assess whether findings of previous studies are confirmed or not.

Of note is the fact that Heirani *et al.* made all their measurements without administering cycloplegia, which they acknowledge as a limitation. A cycloplegic refraction is particularly relevant in ocular examination of children and its omission may have influenced the analysis of data pertaining to the pediatric subgroup. In Table 2 and Figures 4 and 5, ChT is analyzed in association with refractive error, however, 23.9% of these values come from subjects under 20 years of age who are still able to accommodate strongly and subsequently their measured refraction is expected to be falsely shifted toward myopia. Ideally, this subgroup of subjects should be analyzed separately.

Finally, in Table 5, the authors present data on ChT in subjects of different ethnicities. The included studies are characterized by large heterogeneity in terms of subjects' age, which precludes their comparison and renders the table

somewhat misleading. In addition, these studies vary in terms of the refractive error of tested subjects, an additional element which makes them incomparable and is not depicted in the table.

We feel that Heirani *et al.* provide data that are particularly valuable since they include all age groups and expand current knowledge on the ChT profile in Iranian subjects. Caution should be applied when interpreting data on the pediatric subgroup.

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Conflicts of interest

There are no conflicts of interest.

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