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Comparison of quantitative measurement of foveal avascular zone and macular vessel density in eyes of children with amblyopia and healthy controls: an optical coherence tomography angiography study

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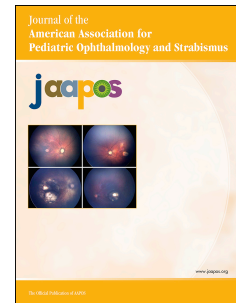
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Comparison of quantitative measurement of foveal avascular zone and macular vessel density in eyes of children with amblyopia and healthy controls: an optical coherence tomography angiography study

To the Editor: We congratulate Yilmaz and colleagues¹ for their pilot study describing the use of the optical coherence tomography angiography (OCTA) to quantitatively study the foveal avascular zone (FAZ) as well as the vasculature of the retina in strabismic amblyopic patients. We wish to raise a few questions about the authors' methodology to facilitate future research in this area.

Why did the authors choose angiography covering a 6×6 mm area for macular scans? The larger field of view will reduce density and hence resolution. The reproducibility and the repeatability of 3×3 scans is well established in previous studies.^{2,3}

Did the same retina specialist image the patients and analyze the images? The presence of strabismus could make masking impossible hence be a source of potential bias. Sometimes imaging patients with strabismic amblyopia with eccentric fixation does not produce good-quality scans. Micromovements also lead to a dramatic change in scan quality. Were such patients with eccentric fixation and/or nystagmus excluded, or were the scans repeated until a specific signal ratio was achieved?

The authors found no significant difference among patients and controls regarding superficial or deep FAZ areas. These results are contrary to the literature and thus require critical appraisal. The deep FAZ area is considerably bigger than the superficial, as reported in adults.³ The automatic segmentation in the SSADA algorithm does not accurately distinguish between the superficial and deep capillary plexuses, the FAZ border being accurately outlined only in the superficial capillary plexus.³ The projection/shadow artefacts should be disregarded or subtracted during analysis.⁴ Ignoring these artefacts might be the

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