

論 文 要 旨

Sex differences in choroidal vessels using novel wide-field choroidal
en-face images from optical coherence tomography

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This study aims to develop a method to quantify choroidal vessels in normal eyes using wide-field optical coherence tomography (OCT) en-face images. The study included participants with normal eyes in whom wide-angle OCT images were acquired to generate planarized choroidal en-face and thickness map images. The images were segmented into central, midperipheral, and peripheral areas, and the midperipheral and peripheral areas were further segmented into supratemporal, infratemporal, supranasal, and infranasal sectors. The mean planarized choroidal-vessel density (p-CVD), planarized choroidal-vessel size (p-CVS), and choroidal thickness (CT) were calculated in each sector. Sex differences were analyzed using the Mann–Whitney U test. The study included 162 participants comprising 84 female (mean age, 43.5 years; axial length, 24.0 mm) and 78 male (mean age, 44.4 years; axial length, 24.2 mm) participants with no significant differences in demographics ($P \geq 0.107$). Men had a higher mean p-CVD in all regions ($P < 0.001$). The mean p-CVS was greater in men in all regions except for the supratemporal sector ($P < 0.001$). No significant differences in sex in the mean CT were observed in all regions ($P \geq 0.106$). The p-CVD and p-CVS in normal eyes differ between sexes. This finding may contribute to the understanding of the pathophysiology of choroidal diseases.