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Introduction

Myopia, or nearsightedness, is a prevalent refractive error characterized by an elongated eyeball. Myopic eyes are at an increased risk of various ocular pathologies, including glaucoma and myopic maculopathy. The peripapillary RNFL, a bundle of nerve fibers originating from retinal ganglion cells, is prone to thinning and structural alterations in myopic eyes. Elevated intraocular pressure has long been associated with glaucoma, but its impact on the peripapillary RNFL thickness in healthy myopic eyes warrants further investigation [1].

Myopia is one of the most common ocular diseases worldwide. The prevalence of myopia is estimated at approximately 20% to 30% among children in Singapore, and this figure is expected to increase in the future. Generally, high myopia is defined as occurring when the spherical equivalent reaches at least 6 dioptres (D) and the axial length elongates above 26 mm. The anatomic features of myopia that involve changes in the optic nerve, such as a large optic disc and optic

measure farther from the optic disc rim. As we mentioned above, the RNFL became thinner with increasing distance to the optic disc. A thinner RNFL is associated with more segmentation errors. Based on this, to increase the diagnostic capability of OCT, some segmentation correction software and a more accurate automated segmentation algorithm are needed [11].

Future directions

As research on this topic continues, several areas warrant further exploration. Longitudinal studies tracking changes in IOP and RNFL thickness over time in myopic individuals could provide valuable insights into the progression of optic nerve changes [12]. Additionally, investigating the impact of IOP-lowering interventions, such as ocular hypotensive medications or surgical procedures, on RNFL thickness in myopic eyes could have significant clinical implications.

Conclusion

The relationship between intraocular pressure and peripapillary RNFL thickness in healthy myopic eyes is a complex and evolving field