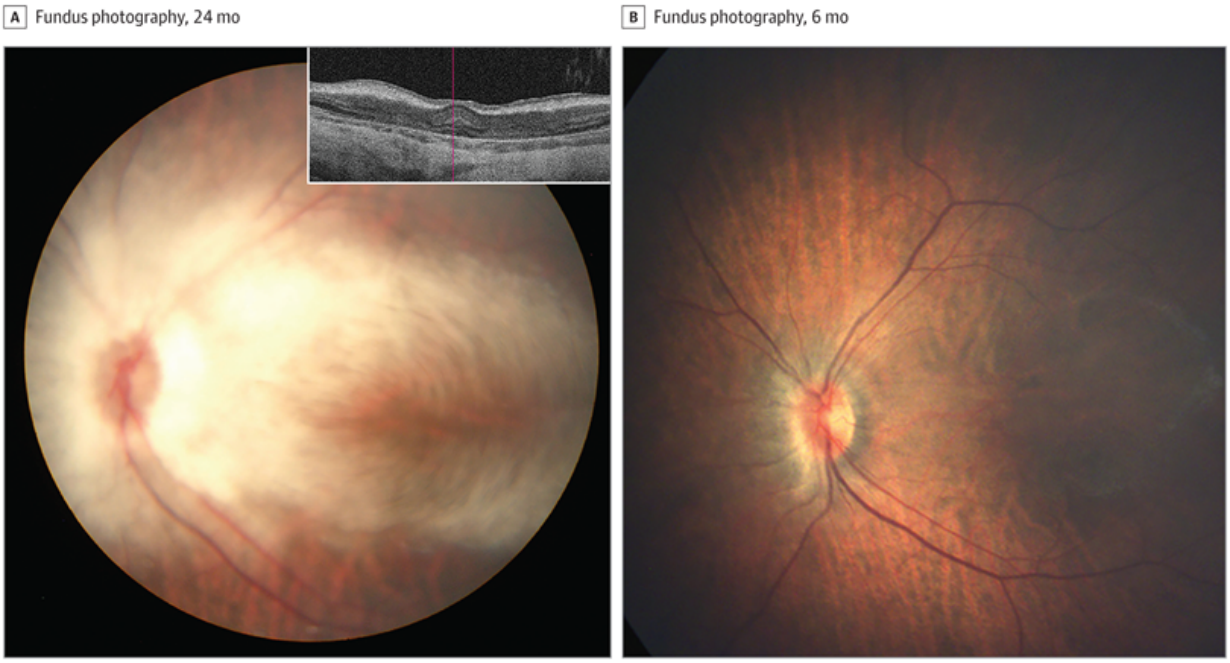
Progressive Retinal Medullated Nerve Fiber Layer in a Young Boy

Although acquired and progressive nerve fiber myelination has been described previously, it is rare in the literature.[1,2] A 24-month-old full-term boy with a history of high myopia was brought to the ophthalmology clinic. Cycloplegic spherical power was −10.00 diopters and −9.50 diopters in the right and left eye, respectively. Ophthalmoscopic examination showed widely distributed medullated nerve fibers in the posterior pole of the fundus (Figure, A). Optical coherence tomography confirmed a thick retinal nerve fiber layer in the posterior pole of the fundus (Figure, A, inset). The boy once underwent RetCam (Natus Medical) fundus examination at 6 months of age. At that time, there was only a small area of perioptic medullated nerve fibers (Figure, B). The images at the 2 time points indicate progression of myelinated nerve fibers from age 6 months to 24 months. There was no history of surgery, congenital ocular or systemic abnormalities, and no family history of medullated nerve fibers in the eye.

Figure.



A, Widely distributed medullated nerve fibers and a thick retinal nerve fiber layer in the left eye at 24 months old. B, A small area of perioptic medullated nerve fibers in the left eye at 6 months old.

Back to top

Article Information

Corresponding Author: Tao Sun, MD, Shanghai Eye Diseases Prevention & Treatment Center/Shanghai Eye Hospital, No. 1440, Hongqiao Road, Changning District, Shanghai 201103, China (drsuntao@yeah.net).

Conflict of Interest Disclosures: None reported.

Funding/Support: This case report was supported by grant 2022SKMR-12 from the Management Research Project of Shanghai Shenkang Hospital Development Center; grant 82000908 from the Program of the National Natural Science Foundation of China; and the Shanghai Key Clinical Specialty.

Role of the Funder/Sponsor: The funders had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

References

1.
Aaby AA, Kushner BJ. Acquired and progressive myelinated nerve fibers. *Arch Ophthalmol*. 1985;103(4):542-544. doi:10.1001/archopht.1985.01050040084024 ArticlePubMedGoogle ScholarCrossref
2.
Dean M, Kirschen D, Hubschman JP, Straatsma BR, Sarraf D, Francone A. Bilateral acquired progressive retinal nerve fiber layer myelination. *Ophthalmic Surg Lasers Imaging Retina*. 2018;49(10):e147-e150. doi:10.3928/23258160-20181002-18PubMedGoogle ScholarCrossref