

OPTIC NERVE HEMORRHAGES AND GLAUCOMA



Sometimes learning from our predecessors can be just as important as keeping up with the latest trends.

BY JACOB LANG, OD, FAAO, DIPL ABO

The optic nerve splinter hemorrhage, or Drance hemorrhage (Figure), that is associated with glaucoma, particularly normal-tension glaucoma, has been discussed in the literature for some time.¹⁻³ Contrary to its nickname, this condition was first described by Jannik P. Bjerrum in 1899.¹ Although Stephen M. Drance, OC, MD, might not have been the first to describe it, his dedication to education and the pursuit of clinical research in glaucoma is what tied his name to this clinical finding.

Dr. Drance recognized that glaucoma can occur regardless of IOP measurement—an opposing viewpoint to most other glaucoma specialists in the 1950s and 1960s.¹ He also dedicated much of his career to education and research on specific glaucomatous optic disc appearances and their possible relationships to risk factors in the development of glaucoma.¹⁻³

From Dr. Drance's career, we can learn much about the appearance of the optic nerve and risk factors for glaucoma, including the below takeaways for clinical management.

The Normal-Tension Glaucoma Trial (NTGT) revealed that even IOP within the normal range is implicated in normal-tension glaucoma, and that lowering IOP is beneficial;³ however, the study also suggested that some patients are more IOP-sensitive than others (20% of treated patients continued to progress).³

In nontreated control patients, women, those with a history of migraine, and those with disk hemorrhages had the most severe disease progression.³

Individuals who were male and/or who had ischemic

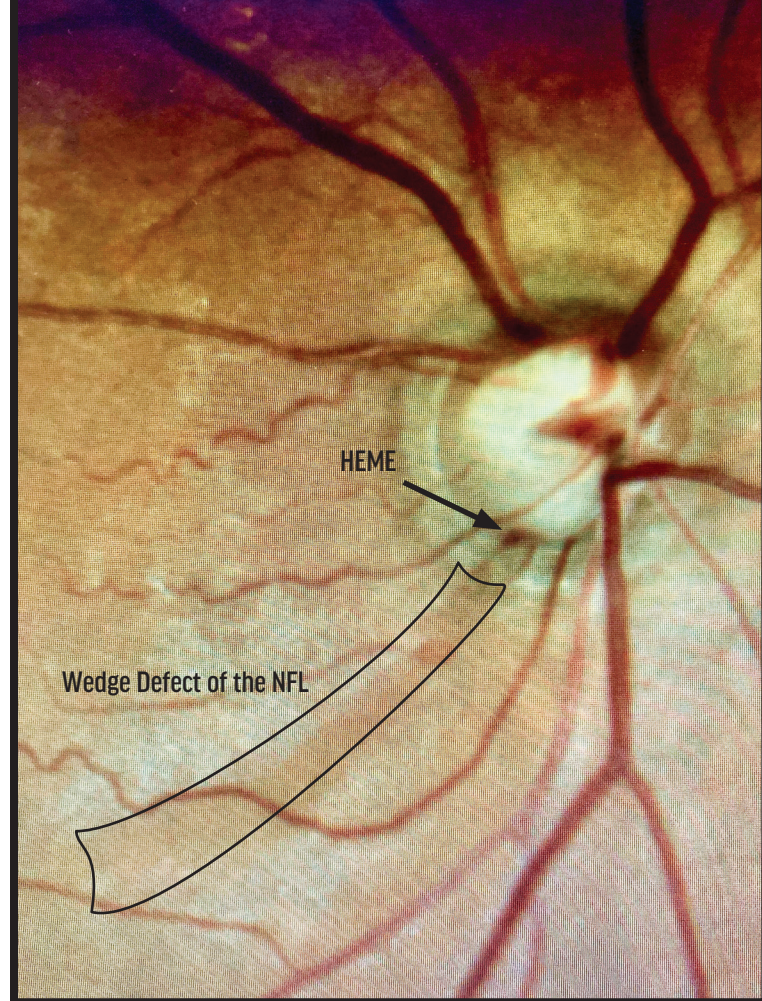


Figure. Glaucomatous optic nerve with an inferior splinter hemorrhage and associated wedge-shaped nerve fiber layer defect.

vascular disease, history of stroke, or disk hemorrhages experienced reduced benefits from IOP reduction, while individuals of female sex and/or those with a history of migraine seemed to benefit the most from IOP reduction.³

It is likely that patients can develop pressure-sensitive disease when they are younger and experience pressure-independent changes later on, when ischemic vascular disease develops.³

Sir Isaac Newton is credited with saying, "If I have seen further, it is by standing on the shoulders of giants." This column is dedicated to Douglas R. Anderson, MD, Murray Fingeret, OD, FAAO, Dr. Drance, and others like them—giants in the field of eye care who have worked tirelessly to advance our profession. ■

1. Stephen Michael Drance, OC, MD (1925-2020). American Academy of Ophthalmology. [www.opthalmologyglaucoma.org/article/S2589-4196\(20\)30279-9/pdf](http://www.opthalmologyglaucoma.org/article/S2589-4196(20)30279-9/pdf). Accessed September 2, 2022.

2. Chauhan B. Stephen Michael Drance, OC, MD (1925-2020). *Ophthalmol Glaucoma*. 2021;4(1):3-4.

3. Drance SM. What can we learn from the disc appearance about the risk factors in glaucoma? *Can J Ophthalmol*. 2008;43(3):322-327.

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