

APPENDIX - BUNDLE CROSS OVER

Typically with intorsion in a patient with HH, the visual fields of both eyes should show a rotation of the vertical meridian, as depicted in Figure 2. For Subject 1 however, only rotations of the lower half of the vertical meridian in the right eye and of the upper half of the vertical meridian in the left eye were noted (Figure 5). These effects were repeatable as seen from measurements made on two separate days (Figure A1). They suggest possible spared fiber or an anatomic variation¹ of bundle crossover in the chiasm resulting in sparing of an upper segment in the right eye and a lower segment in the left eye.

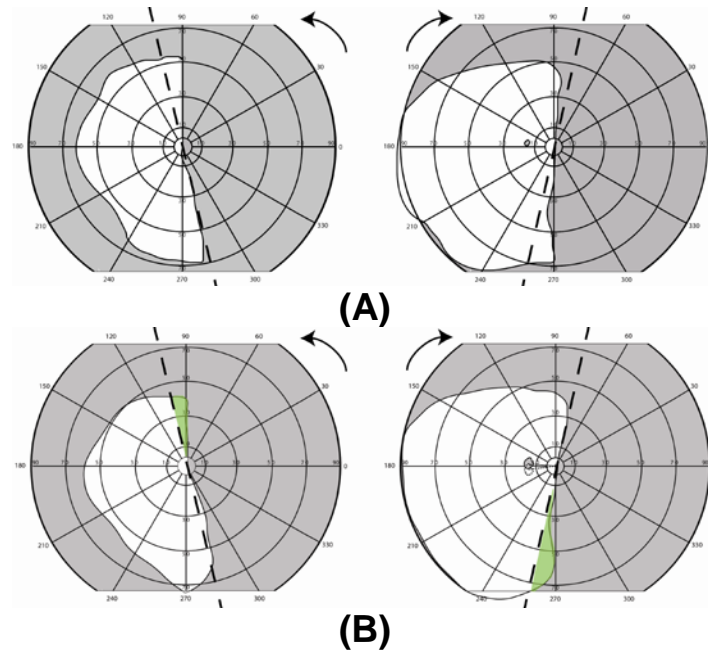


Figure A1: Monocular Goldmann visual fields were measured on two separate days show excellent repeatability (as in Fig. 5, left eye field is plotted on the right). Superior position of the left eye physiological blind spot in the left eye field indicates intorsion (target V4e for **(A)** and III4e for **(B)**). The expected rotation of the vertical meridian based on retinal photo torsion is marked by the tilted dashed lines. Additional residual visual fields in left (inferiorly) and right eye (superiorly) are highlighted in green **(B)**. These could be due to spared/misdirected nerve fibers from the blinded hemi retina that ended in the spared hemisphere. Such crossing over is not rare but is rarely possible to notice except in cases of hemianopia.

¹ Younger BR. Midline tilting between seeing and nonseeing areas in hemianopia. Mayo Clinic proceedings 1976;51:562-8.