



Supplementary Figure 1. Variations of clinical findings with glaucoma

The central grey circle in each of the visual field pattern deviations (D) corresponds to the area assessed by the ganglion cell analysis (E, F). (D) Please note that conventionally visual field test results are aligned to display the left eye on the left side and the right eye on the right hand side of the observer. As indicated by the blue labels, the opposite order was chosen for this figure to align visual field tests with all other results of the respective eye, resulting in a reversal of the orientation for this panel only. Additional patient details are provided in Table 2 and in the text.

Patient 15. A. Patient 15 had large optic disc cupping with prominent thinning of the neuroretinal rim inferiorly and inferotemporally and moderate thinning of the superior rims.

B-F. Both eyes showed dense nerve fibre defects inferiorly (red arrow) and some reduction in the retinal nerve fibre layer superiorly. These changes were in concordance with the mostly superior reduction of the visual field (D) and inferior thinning of the ganglion cell layer (E, F).

Patient 16. A. Patient 16 presented average sized discs with thinning neuroretinal rim, most pronounced left inferior.

B, C. Retinal nerve fibre layer analysis showed slight thinning in the inferior aspects of both eye and the superior aspect of the right eye.

D. Visual field results revealed bilateral scattered depressions.

E, F. Ganglion cell analysis highlighted thinning inferotemporal in the left eye.

Patient 17. A-C. Patient 17 had average sized discs with mostly inferonasal retinal nerve fibre dropout in the right eye.

D. The nerve fibre defect correlated to a superotemporal defect in the visual field of the right eye.

E, F. Ganglion cell analysis pointed to inferior loss in both eye but to a higher degree in the right eye.

Patient 18. A. Patient 18 displayed large optic discs with extensive peripapillary atrophy, visibility of which was compromised by lenticular opacity.

B, C. The retinal nerve fibre layer was bilaterally reduced inferior and superior in the right eye.

D. Visual field results indicated scattered defects in both eye, more pronounced in the inferior part of the right eye.

E, F. Ganglion cell analysis suggested bilateral inferior thinning.

Patient 19. A-D. Patient 19 had small optic nerve heads with subtle thinning of the right superior and superotemporal neuroretinal rim, due to an arcuate nerve fibre defect (B, C) causing an inferonasal visual field defect in the right eye (D).

E, F. Findings are reflected in the right superotemporal thinning of the ganglion cell layer.