Tracking structural abnormalities is more important in early glaucoma than at the end of the disease

The Science behind the Tip

Diagnosing glaucoma and documenting progression at an early stage of the disease is a key thing to successful glaucoma management. Although the visual field may sometimes show the first evidence of glaucomatous damage\(^1\), it is more common that the structural changes occur before functional loss as evidenced by current automated perimetry\(^1-3\). In early disease it is thus important to track tissue loss in the retinal nerve fibre layer and optic disc, and search for disc hemorrhages that can precede such loss\(^1,4\). Disc hemorrhages are an important sign of glaucoma progression in hypertensive\(^1,4\) and normal-tension\(^5\) glaucoma patients. Generally they remain apparent for at least 4 weeks\(^5\).

In advanced disease however, carefully assessing visual field tests for further damage is often more helpful than monitoring the structural abnormalities. It becomes difficult to observe further tissue loss when the optic disc approaches a state of absolute cupping, and disc hemorrhages have not been documented in fully cupped discs. In end stage disease, strategies testing 10° of the visual field are often more efficient and less tiring for the patient than the ones testing 24° or 30°.

References


Contributor: Ann Hoste, Antwerp Management