

Best Poster Award 2009

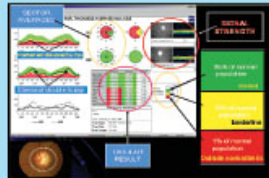
OCT RNFL ANALYSIS – JUDGE JUDICIOUSLY

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Visual field damage in glaucoma is a relatively late phenomenon. Consecutive field tests are required to reliably diagnose glaucoma. Up to 86% of abnormal and reliable fields may not be confirmed on retest (OHTS). Quantitative RNFL analysis by OCT has shown a statistically significant correlation between RNFL thickness and glaucoma. OCT RNFL analysis could well be the call of the day but.....beware of the pitfalls.



PARAMETER GUIDELINES	
QUADRANT AVERAGES	AVERAGE RNFL THICKNESS
TEMPORAL 88.88 (10.4)	NORMAL 88.88 (11.0)
SUPERIOR 134.00 (20.3)	EARLY GLAUC. 92.33 (18.4)
NASAL 91.50 (20.0)	ADV. GLAUC. 59.73 (13.4)
INFERIOR 136.10 (23.3)	

INTER EYE ASYMMETRY > 30 IS SIGNIFICANT

CASE 1 : A high myopic with a mean day diurnal IOP of 22 mm Hg (RE) & 21 mm Hg (LE) and a CCT of 590m(RE) & 598m(LE) and without any family history of glaucoma, was under treatment for glaucoma, based on this OCT.

Repeat OCT

CASE 2 : A middle aged diabetic female with a mean day diurnal IOP of 18 mm Hg (RE) & 19 mm Hg (LE) and a CCT of 510m(RE) & 500m(LE), with open angles on gonioscopy, without any family history of glaucoma, presented for a routine eye check-up.

RNFL THICKNESS AVERAGE ANALYSIS

JUDGE JUDICIOUSLY

- Look at the “Signal Strength” before judging the RNFL analysis to be “Abnormal”.
- MYOPES have low average RNFL thickness.
- Significant proportion of myopic eyes will be classified as “outside normal limits” when compared to the normative database.

JUDGE JUDICIOUSLY

OCT RNFL analysis can be **NORMAL** in the presence of a documented visual field defect. The technology is young and still evolving.

CASE 3 : A 48 year old myopic male with a mean day diurnal IOP of 24 mm Hg (RE) & 18 mm Hg (LE) and a CCT of 535m(RE) & 540m(LE) and with open angles on gonioscopy with a family history of glaucoma (mother and elder brother), presented for a routine eye check-up.

RNFL THICKNESS AVERAGE ANALYSIS

Visual field plots showing normal results.

JUDGE JUDICIOUSLY

OCT RNFL thickness analysis may detect glaucomatous damage earlier than standard conventional perimetry & aid in the diagnosis of pre-perimetric glaucoma.

Retinal nerve fiber analysis by OCT is an extremely useful diagnostic aid for glaucoma by way of providing corroborative evidence of disease. The key to deriving the maximum benefit from this investigative modality lies in judging its application judiciously with adequate clinical correlation

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