

# RETINAL IMAGE ANALYSIS *for* GLAUCOMA DETECTION

World's most advanced Glaucoma analyser

**PATIENT NAME :** John Derby **REF. ID :** 875AB5

FEATURES	
11043	Rim Area
14808	Disc Area
14808	Avg. CDR
0.51	Horizontal CDR
0.51	Vertical CDR

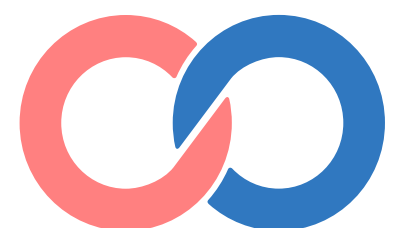
**ISNT GRAPH**

**ISNT RULE**

**DDLS**

**EMAIL** **PRINT**

Changing the way ophthalmologists work.

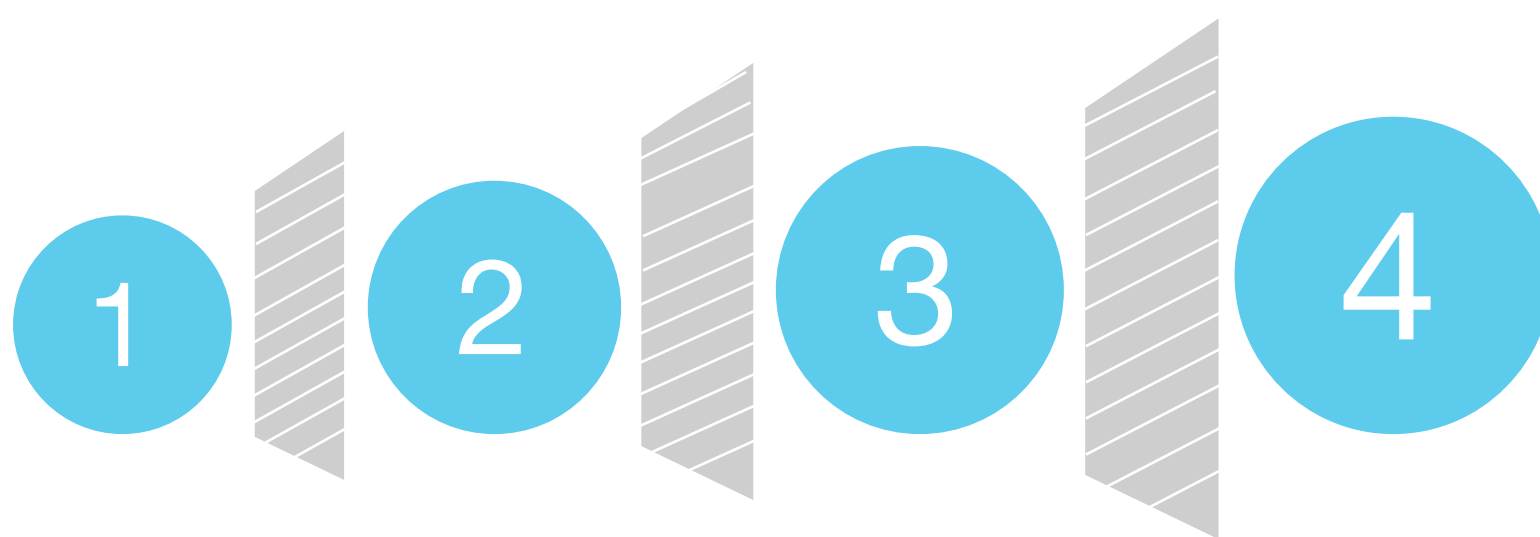


## RIA-G

# Advanced is the new standard.

**Kalpah's** RIA-G (Retinal Image Analysis - Glaucoma) is equipped with advanced Imaging algorithms to help detect an early onset of Glaucomatous disc damage. Built with the insight from numerous industry experts, RIA-G analyses four different parameters to detect glaucoma.

Analyze glaucoma with four risk analysis.



Minutest precision matters in healthcare

## CDR



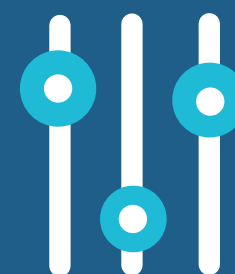
RIA-G looks for signs of Glaucoma damage in the retina and optic nerve. With intelligent features like Vertical & Horizontal CDR, Cup to Disc Ratio analysis is now more reliable than ever before.

## ISNT



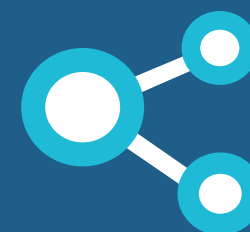
The changes in the appearance of neuroretinal rim holds the key to quantifying glaucomatous disc damage. RIA-G carefully examines the neuroretinal rim, the pattern of thickness and areas of focal thinning.

## DDLS



Disc Damage Likelihood Scale (DDLS) is a reproducible method of estimating the amount of optic nerve damage caused by glaucoma. Taking advantage of the smart algorithms, RIA-G accurately stages the optic nerve according to the DDLS.

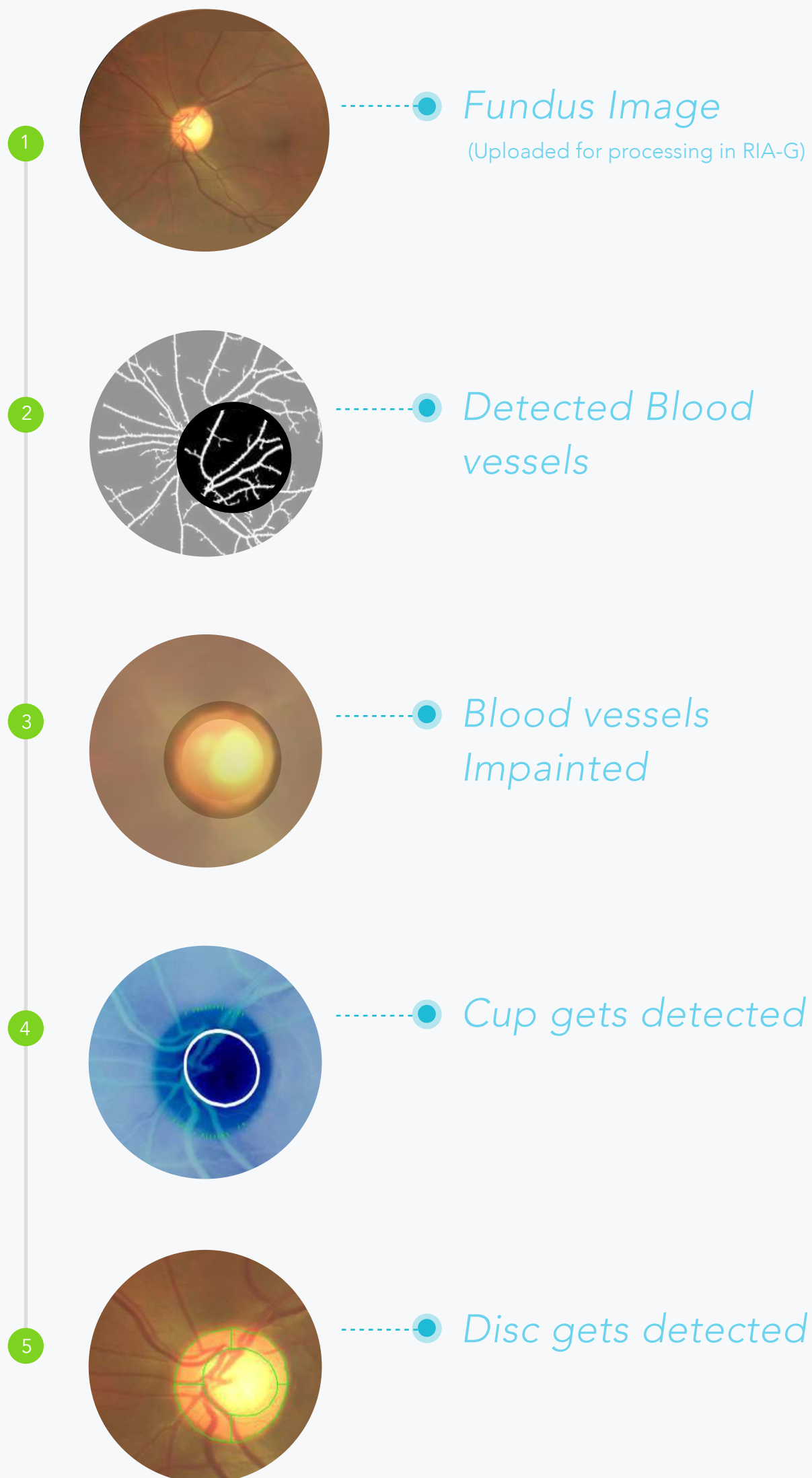
## Intereye asymmetry



Asymmetric findings between fellow eyes have long been considered a hallmark of glaucoma.

RIA- G estimates glaucomatous disc damage with precision.

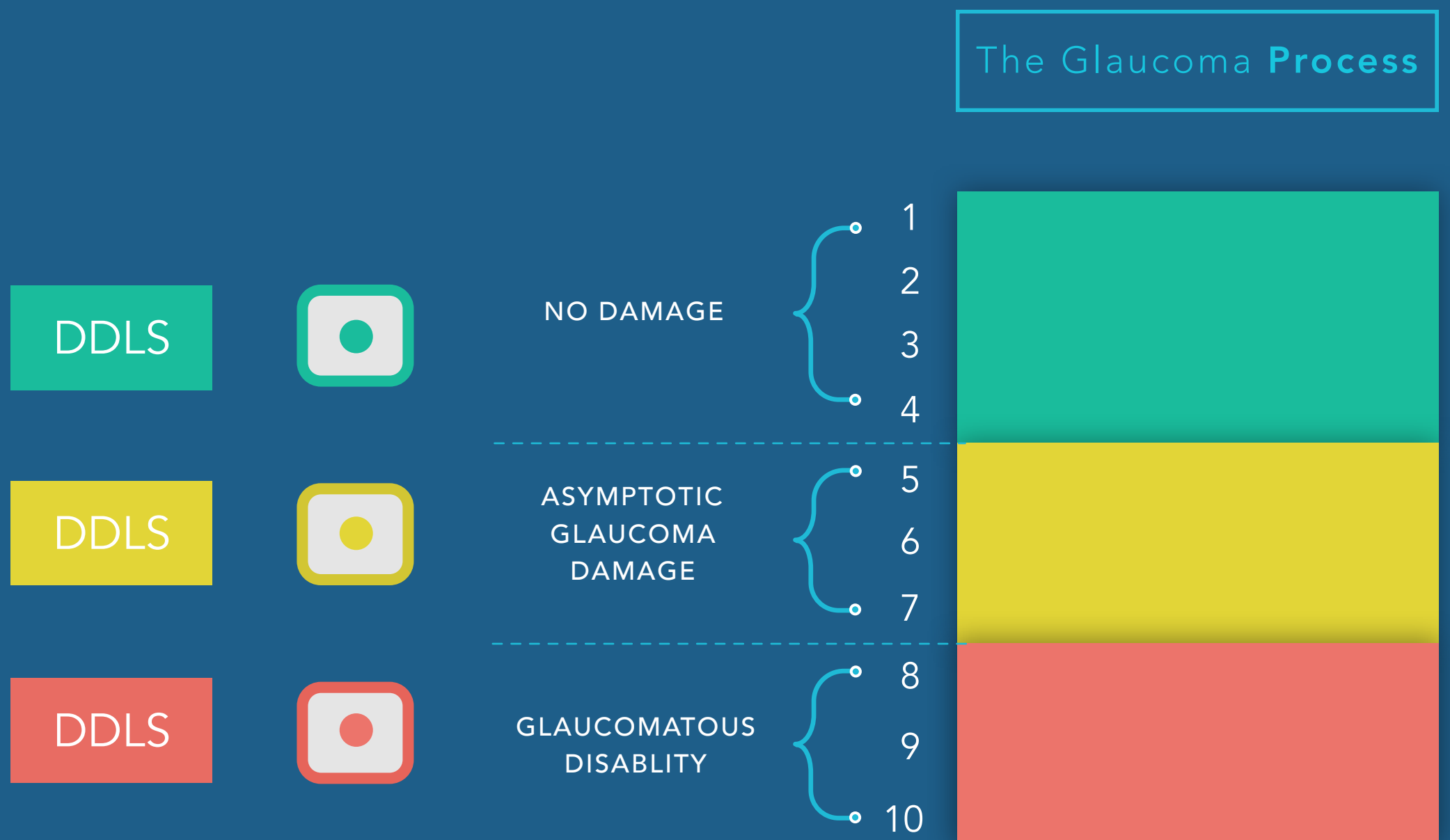
# Cup to Disc ratio



## WHY?

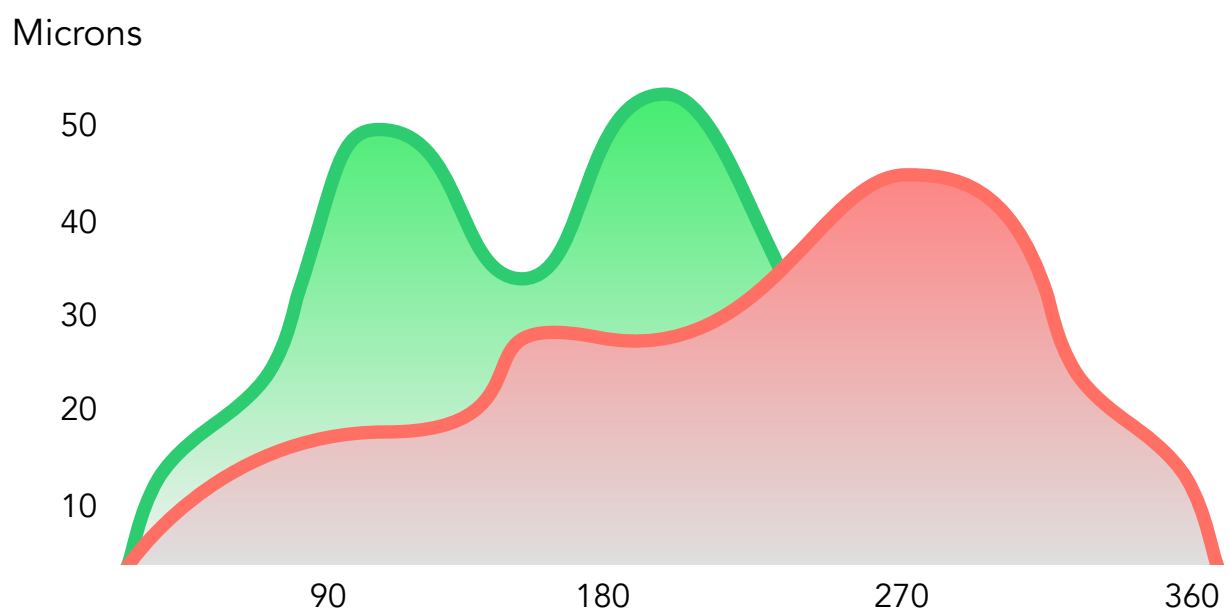
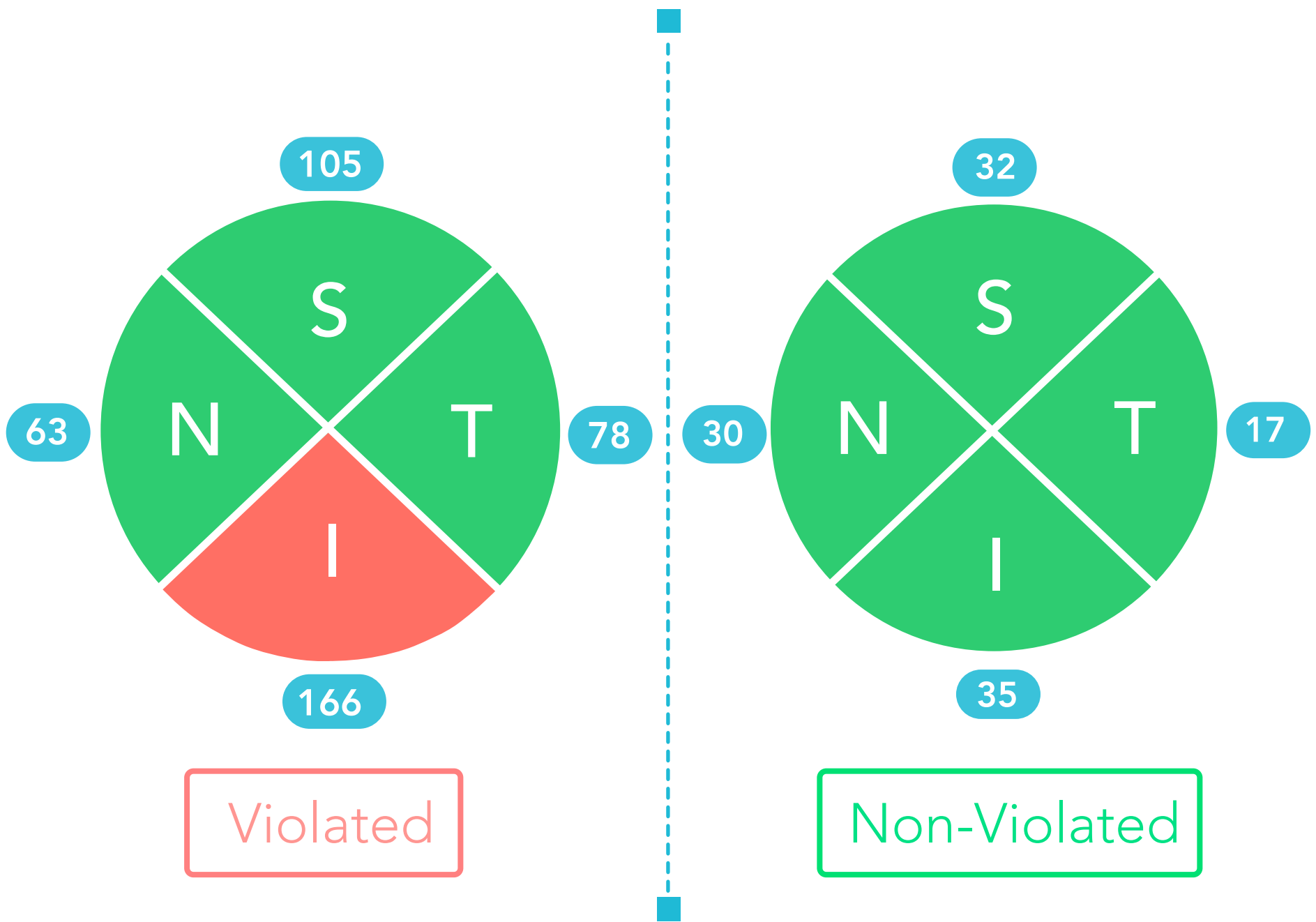
Manual measurement of CDR is both time consuming & prone to inter-observer variability, which restricts the CDR to be assessed in mass screening. Therefore, an automatic cup to disc ratio measurement system is the need of the hour for a doctor. RIA-G does this job perfectly. Just upload the image and let it process the results, automatically.

# Disc Damage Likelihood Scale



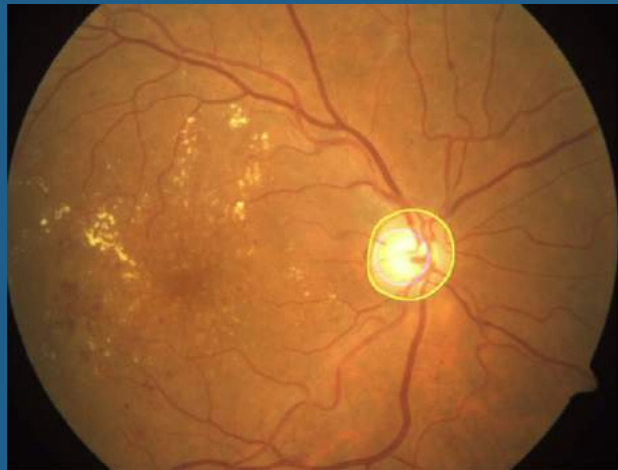
RIA-G uses a color coding standards to help differentiate between a glaucomatous eye & a normal healthy eye. 1-4 on DDLS scale shows a green color, 5-7 shows a yellow color & anything above 7 on DDLS scale shows a red color which means the person is having glaucoma.

# Inferior Superior Nasal Temporal

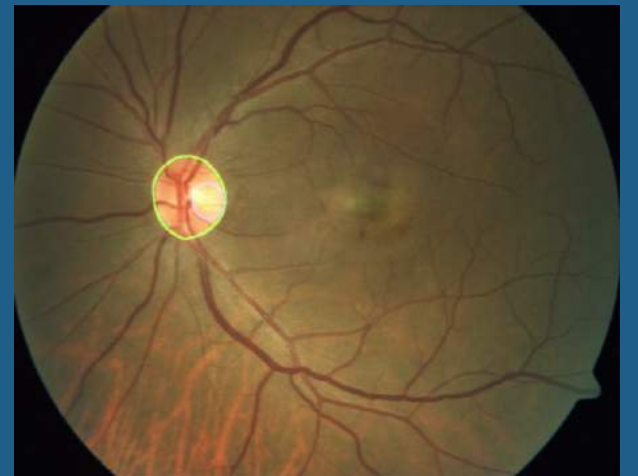


ISNT Plot

# Intereye Asymmetry



Summary Parameters	OD	OS
TSNT average	51.0	37.8
Superior average	65.0	42.2
Inferior average	54.1	41.3
TSNT Std. Dev.	20.0	18.3



**Intereye asymmetry**

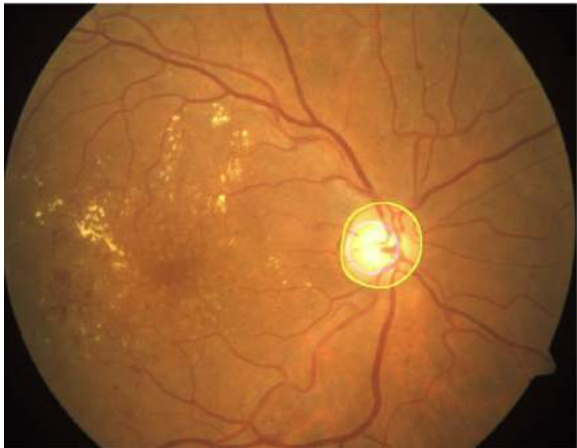
0.61

Inter-eye asymmetry of optic disc cupping is useful in identifying glaucoma for the reason that one eye is usually worse than the other in glaucomatous patients. In contrast, only about 3 percent of normal individuals have such asymmetry. Therefore, inter-eye optic disc cupping asymmetry is a good indicator for the suspicion of glaucoma.

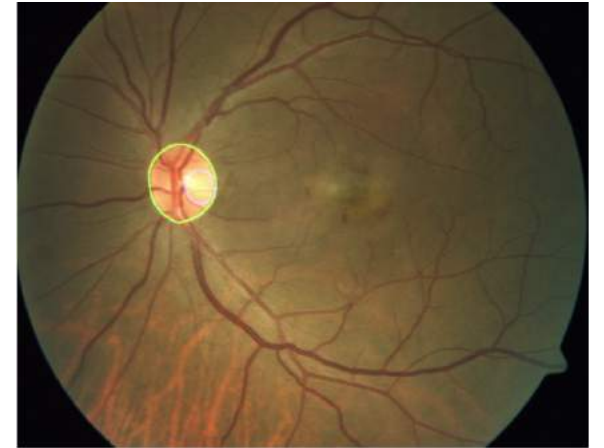
# Final Report

PATIENT NAME : *Samrendra Singh*

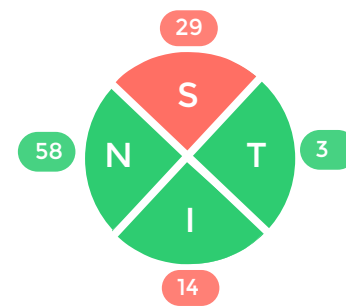
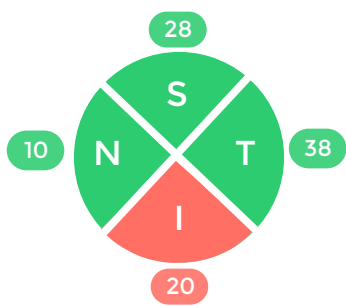
PREF ID : *875AB5*



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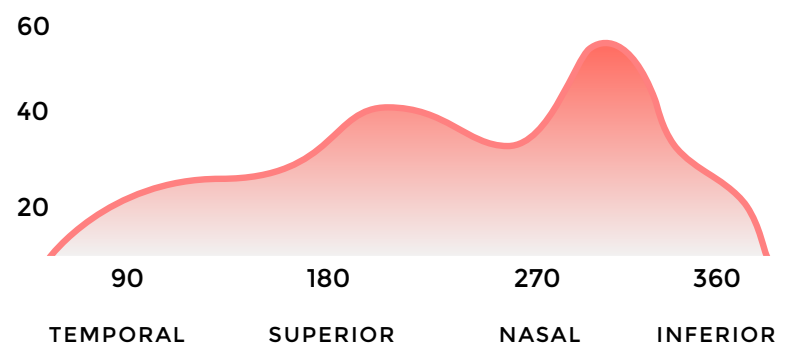
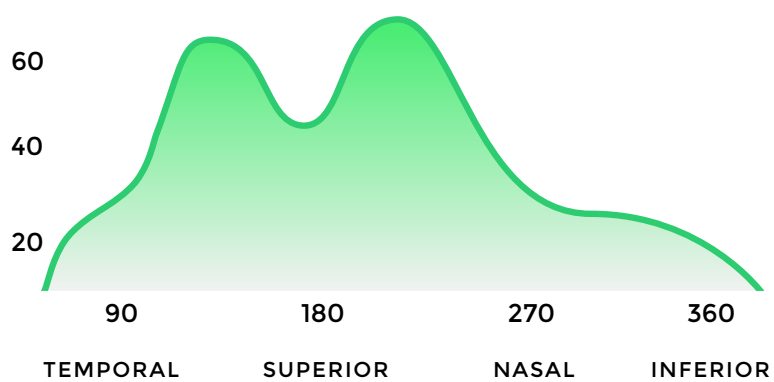
## ISNT RULE



## DDLS



## ISNT GRAPH



 EMAIL

 PRINT



# Workflow



Doctor scans the eye using advanced fundus camera.

Patient visits the doctor to get his eyes examined.



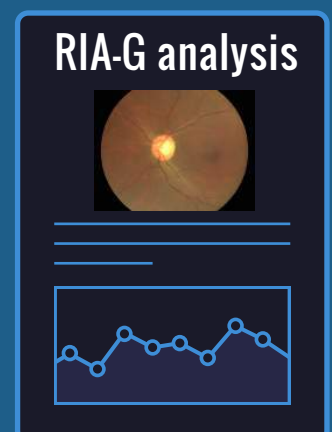
RIA-G analyses the images & sends back the result.



Fundus image is sent to RIA-G Server.



**RIA-G**



Doctor makes an informed decision based on the analysis.



# Kalpah Innovations Pvt. LTD.



**Visakhapatnam**

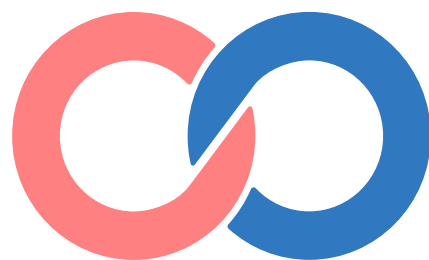
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