

Target IOP, what is it?

Definition

- The American Academy of Ophthalmology defines TARGET IOP as "Upper limit of IOP that prevents further glaucomatous damage".
- Also called the "Ideal Pressure", "Safe Level of IOP"
- Neuropathy progresses very slowly as long as the pressure for the individual remains below this value.

Definition...

- It is not an ABSOLUTE value, but needs to be reassessed with time.
- Target IOP may be classified under 3 heads -
 - Ideal Target Pressure Least risk of progression
 - Acceptable Target Pressure Low risk of progression
 - Borderline Target Pressure High risk of progression.

Examples

- Healthy ONH, no field changes, presenting IOP = 28 mm Hg
 - Ideal Pressure --- 20-22 mm Hg
 - Acceptable Pressure --- 23-24 mm Hg
 - Borderline Pressure --- 25-26 mm Hg

Examples...

- Near total cupping, corresponding visual field changes, IOP = 18 mm Hg
 - Ideal Pressure --- 8-10 mm Hg
 - Acceptable Pressure --- 11-13 mm Hg
 - Borderline Pressure --- 14-15 mm Hg

Methods to determine the Target IOP

- Numerical Methods
 - Always aim for an IOP < 21mm Hg
 - Lower the IOP by 30%
 - Lower the IOP by 1/3 of the baseline
 - Lower the IOP as much as possible
 - Calculate the T.IOP = $((1-RP+VFS)/100) \times RP$

Methods to determine the Target IOP

- Theoretical Methods include -
 - Highest IOP recorded
 - Age of the patient (greater the age, lower the IOP)
 - Extent of ONH damage
 - Pace of the disease
 - Systemic disorders (DM, HT, etc.)

Methods to the determine Target IOP Theoretical (ONH changes)

Upto 0.3 cupping 20%

0.4-0.5

0.6-0.7

0.8 to total cupping 60%

Methods to determine the target IOP Theoretical (VF changes)

Visual Field Loss Pre-treatment IOP (mm Hg) Mild VFL Moderate VFL Severe VFL

Classifying VFL (AAO classification)

- Mild VFL -
 - Optic nerve abnormalities consistent with glaucoma, but VF are normal
- Moderate -
 - VF abnormalities restricted to either hemifield but do not extend within 5° from fixation
- Severe -
 - VF abnormalities in both hemifields or within
 5° from fixation

Summary

- Set higher Target IOP levels for -
 - Higher IOP at initial presentation
 - Shorter life expectancy
 - Early ONH damage
- Set lower Target IOP levels for -
 - Lower IOP at initial presentation
 - Longer life expectancy
 - Advanced ONH damage

Thank you!