CORNEAL EC GROWTH OVER TM

1) Post. polymorphous corneal dystrophy
2) ICE syndromes
3) Chronic intraocular inflam.
4) Following blunt trauma
5) Following penetrating injury
6) Rubeosis

RISKS FOR IOP RISE WITH STEROIDS

1) COAG
2) Family history of COAG
3) DM
4) Myopia

VF DEFECTS

1) Paracentral and nasal step - 50%
2) Paracentral - 25%
3) Nasal step - 25%
4) Temporal wedge - 2% (myopes)

INCREASED GOLDMANN IOP

1) Eyelid squeezing
2) Breath holding
3) Valsalva
4) Pressure on globe
5) Tight collar
6) Excessive fluoress
7) Tono not calibrated

LOW SCLERAL RIGIDITY

(Decreased Shiotz IOP)

1) High myopia
2) Cholinesterase inhibitors (PI)
3) Thyroid disease
4) Post cataract surgery
5) Scleral buckling
6) Compressive gases
7) RD surgery
8) Corneal edema?

HIGH SCLERAL RIGIDITY

(Increased Shiotz IOP)

1) Epinephrine or vasoconstrictors

2) Chronic glaucoma

3) Extreme myopia

4) Hypermetropia

IRIS DISTORTION

1) Axenfeld-Rieger's
2) ICE syndrome
3) PPD?
4) Rubeosis
5) Iris melanoma
6) Post trauma

TARGET IOP

An IOP that will presumably prevent future optic nerve damage

Factors:

1) Severity of existing optic nerve damage
2) Level of IOP at which nerve damage occurred
3) Current height of the IOP
4) Rapidity with which the damage occurred
5) Age (younger - lower IOP)
6) Race - blacks - lower IOP

TARGET IOP

1) Mild damage: 15-20% reduction

2) Moderate damage (field defects in both hemifields): 20-30% reduction

PIGMENTED TM

1) Pseudoex.
2) Pigm. dispersion syndrome
3) Post hyphema
4) Melanomalytic
5) Aging
6) DM
7) Race
8) Chronic uveitis
9) Iris color
10) Post PI
11) Post trauma
12) COAG ?

CUPPING

1) Chronic glaucoma

<u>All the following have pallor:</u>

2) AION (arteritic more common cause 60-80%)
3) syphilis
4) compressive lesion
5) hypotensive episode
6) Leber's hereditary optic neuropathy
7) trauma
8) myopic changes
9) coloboma
10) retinal or nerve causes

COAG RISK FACTORS

1) Increased IOP
2) Age
3) Family hx.
4) D.M.
5) Steroids
6) Myopia
7) Blacks>whites
8) CV disease

NTG

Intermittent elevated IOP

1) Posner Schlossman
2) Previous uveitic glaucoma
3) Diurnal fluctuation COAG
4) Hyposecretion COAG (burnt out)
5) Intermittent ACG
6) Previous steroid use

Other

1) Previous hypotensive (BP) episodes
2) ON compression
3) Methanol toxicity
4) Syphilis
5) Anemia
6) Old AION

TUMORS AND GLAUCOMA

1) Direct invasion angle
2) Neovascularization of angle
3) Hemorrhage (hyphema, ghost cells)
4) Necrosis with t.m. blockage by tumor cells
5) Displacement of lens-iris diaphragm

BLOOD IN SCHLEMM'S CANAL

Raised EVP

1) Retrobulbar tumors
2) TRO
3) SVC syndrome
4) Orbital varices
5) C-C fistula
6) Dural sinus fistula
7) Sturge Weber syndrome
8) Familial

Pressure differences

1) Excessive pressure with Goldmann lens
2) Ocular hypotony
3) Diffuse episleritis

DISC SIGNS OF GLAUCOMA

A) *Generalized*

1) Large cup
2) Asymmetric cups
3) Progressive enlargement of cup

B) *Focal*

1) Rim notching
2) Vertical elongation of cup
3) Splinter heme
4) Regional pallor
5) NFL loss

C) *Other*

1) Exposed lamina cribosa
2) Nasal displacement of vessels
3) Baring of circumlinear vessels
4) Peripapillary crescent

PLATEAU IRIS

Situation: increased IOP despite PI

1) Post. synechiae
2) Imperforated PI
3) Multiple iris cysts
4) Aqueous misdirection
5) COAG with narrow angles
6) Combined mechanism glaucoma
7) Steroid or cycloplegic effect

UVEITIS WITH GLAUCOMA

A) *Autoimmune*

1) Posner Schlossman
2) Fuch's heterochromia
3) Trabecular precipitates
4) Sarcoidosis
5) JRA
6) Iritis (usually low IOP)

B) *Infectious*

1) HSV
2) HZV
3) Syphilis
4) Toxoplasmosis

C) *Other*

1) Neovascular glaucoma

ACUTE INCREASED IOP

1) ACG
2) Posner-Schlossman
3) Inflammatory glaucoma (see above)
4) Malignant glaucoma
5) Postop glaucoma
6) Suprachoroidal hemorrhage
7) Retrobulbar hemorrhage

SIGNS OF AACG

1) Ciliary-conjunctival injection
2) Corneal edema
3) Cells in aqueous (but no keratic precipitates)
4) Glaucomflecken
5) PAS
6) Posterior synechias
7) Engorged iris vessels
8) Iris atrophy
9) Optic atrophy
10) Closed angle gonioscopically (narrow angle in fellow eye)

UVEAL EFFUSION SYNDROME

Due to increased scleral thickness or hydrostatic causes

A) *Thickened sclera*

1) Nanophthalmos

2) Scleritis

3) Hyperopia

B) *Uveal inflammation*

1) VKH

2)2) SO

3)3) Chronic uveitis

4)4) Post cryo or laser

C) *Other*

1) idiopathic

2) ocular hypotension

3) post-op

4) C-C fistula

DILATORS INDICATED

1) Aphakic / pseudophakic pupil block
2) Malignant glaucoma
3) Uveitic glaucoma
4) Nanophthalmos (usually)
5) Phacomorphic glaucoma
6) Spherophakia (microspherophakia)

MIOTICS INDICATED

1) COAG
2) Pigment dispersion (1st drug)
3) Pseudoexfoliation
4) Acute ACG
5) Plateau iris syndrome

MEDS WHICH DON' T LOWER IOP

1) Ketamine (about the same)
2) Succinylcholine (mild increase)

ANGLE ANOMALIES IN CONGENITAL GLAUCOMA

1) Anterior insertion
2) Barkan's membrane
3) No angle recession

ANGLE GRADING

Van Herick's Angle

Grade 1) < ¼ CT

Grade 2) = ¼ CT

Grade 3) ¼-½ CT

Grade 4) > 1 CT

Scheie's Classification

Wide open - all structures seen

I: Hard to see over iris root; CB seen

II: SS seen

III: TM seen

IV: SL seen

Shaffer's Classification

A) Wide open (20-45%)

B) 10-20 degrees

C) < 10 degrees

D) Closed

Spaeth Classification

1) Angle of iris (10-40)

2) Configuration (q, r, s)

3) Insertion (A-E); A=SL; E=CB

PIGMENT DISPERSION SYNDROME TREATMENT

1) Pilo
2) Beta blocker
3) Alpha agonist
4) Xalatan
5) ALT
6) Trabeculectomy

UNILATERAL GLAUCOMA

1) PHPV
2) ICE
3) Fuch's
4) Neovascular
5) Uveitic
6) Glaucomatocyclitic crisis

ICE SYNDROME TREATMENT

1) Antiglaucoma meds

- may need lower IOP than usual for corneal edema

2) Muro-128 for corneal edema

3) ALT useless

4) Implant (high trab failure rate)

5) PKP

NVG

- 1) DM
- 2) CRVO, BRVO
- 3) BRAO
- 4) RD
- 5) Retinal tumor
- 6) Uveal tumor
- 7) Uveitis
- 8) Ocular ischemic syndrome
- 9) Trauma

VESSELS IN THE ANGLE

A) *Normal*

1) Radial iris vessels
2) Circumferential c.b. vessels
3) Anterior ciliary vessels
4) Don't arborize
5) Don't cross SS

B) *NV*

1) Cross from c.b. → SS → t.m.
2) Arborize over t.m.
3) "Trunk-like vessels"
4) May have accompanying fibrosis

C) *Fuch's*

1) Fine
2) Branching
3) Unsheathed
4) Meandering

HVF DEFINITIONS 1

1) 24-2: 54 points (incl 2 points for blind spot)
2) 30-2: 76 points
3) FP: buzzes when no stimulus
(>33% is significant)
4) FN: doesn't buzz when suprathreshols stimulus is presented (9 dB)
(>33% is significant)
5) FL: buzzes when stimulus is in blind spot
(> 20% is significant)

HVF DEFINITIONS 2

1) STF: fluctuation during duration of test; determined by rethresholding 10 points (Octopus retests all 59)
2) LTF: fluxtuation between 2 different tests
3) MD: location-weighted *mean of the values in the total deviation* plot ("the average height of the entire hill of vision")
4) PSD: standard deviation from mean deviation for each point (always a positive number)
5) CPSD: CPSD = $(PSD^2 - STF^2)^{1/2}$; CPSD is PSD corrected for influence of STF
6) Total deviation plot: plot of deviation at each point relative to age-matched controls
7) Pattern deviation plot: plot of total deviation - mean deviation for each point