SAWA UNIVERSITY

INDICATION FOR REFERRAL TO A PEDIATRIC OPHTHALMOLOGIST-NEWBORN

جامعة ساوة

كلية التقنيات الصحية والطبية

قسم تقنيات البصريات

المرحلة الرابعة

الفصل الأول

طب عيون أطفال نظري

اسم المحاضر: د. منار شعبان قاسم

رقم المحاضرة: 5

IMPORTANCE OF REFERRAL

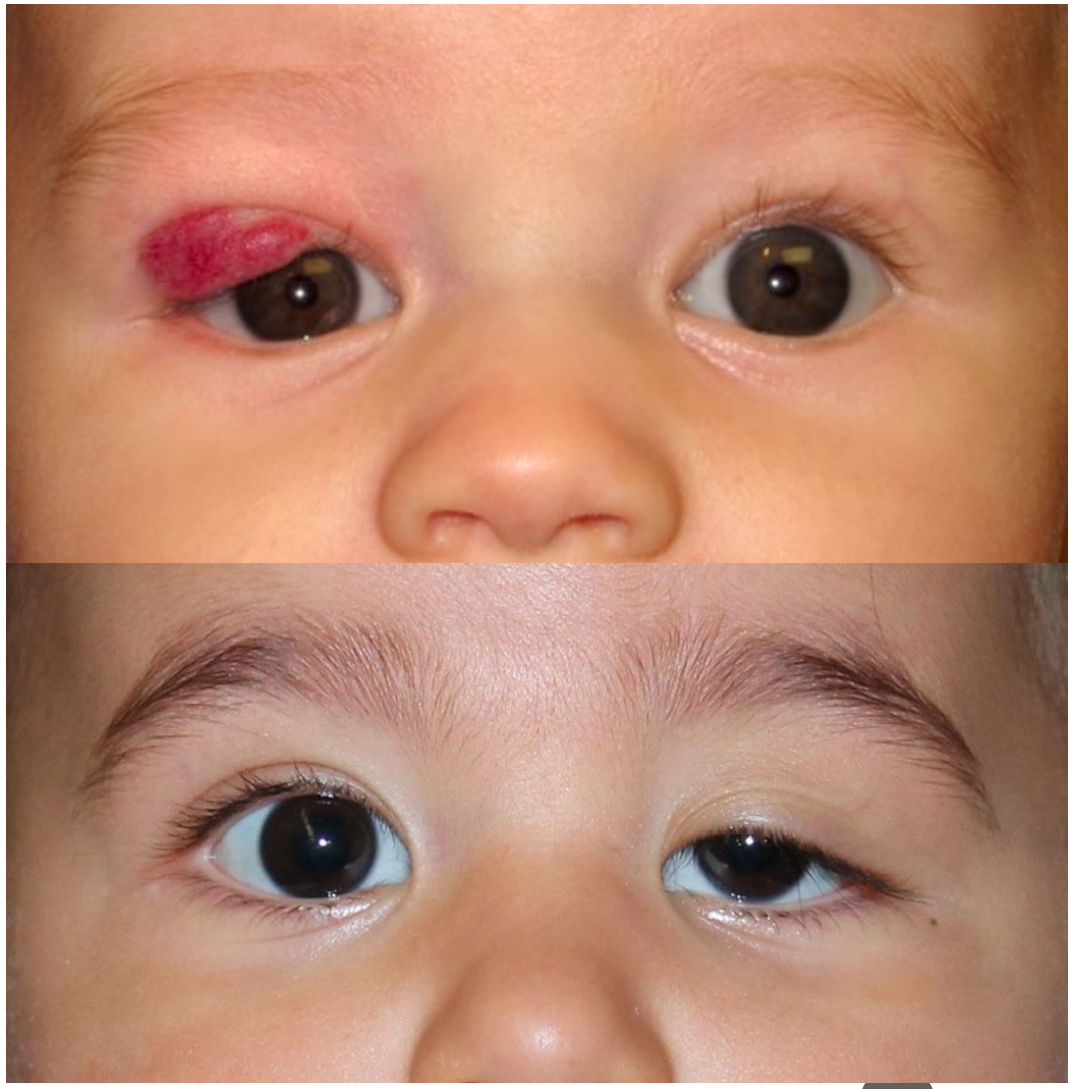
- The importance of the optometrist in identifying and referring sight-threatening conditions is essential
- An accurate referral is necessary to avoid patient's risk and to minimize sight loss from eye conditions.
- an ordinary referral should be within a month
- and less than 7 days for a preferential referral
- Referrals regarded as urgent should be met in 24-72 hours

REFERRAL IN EYELID CASES

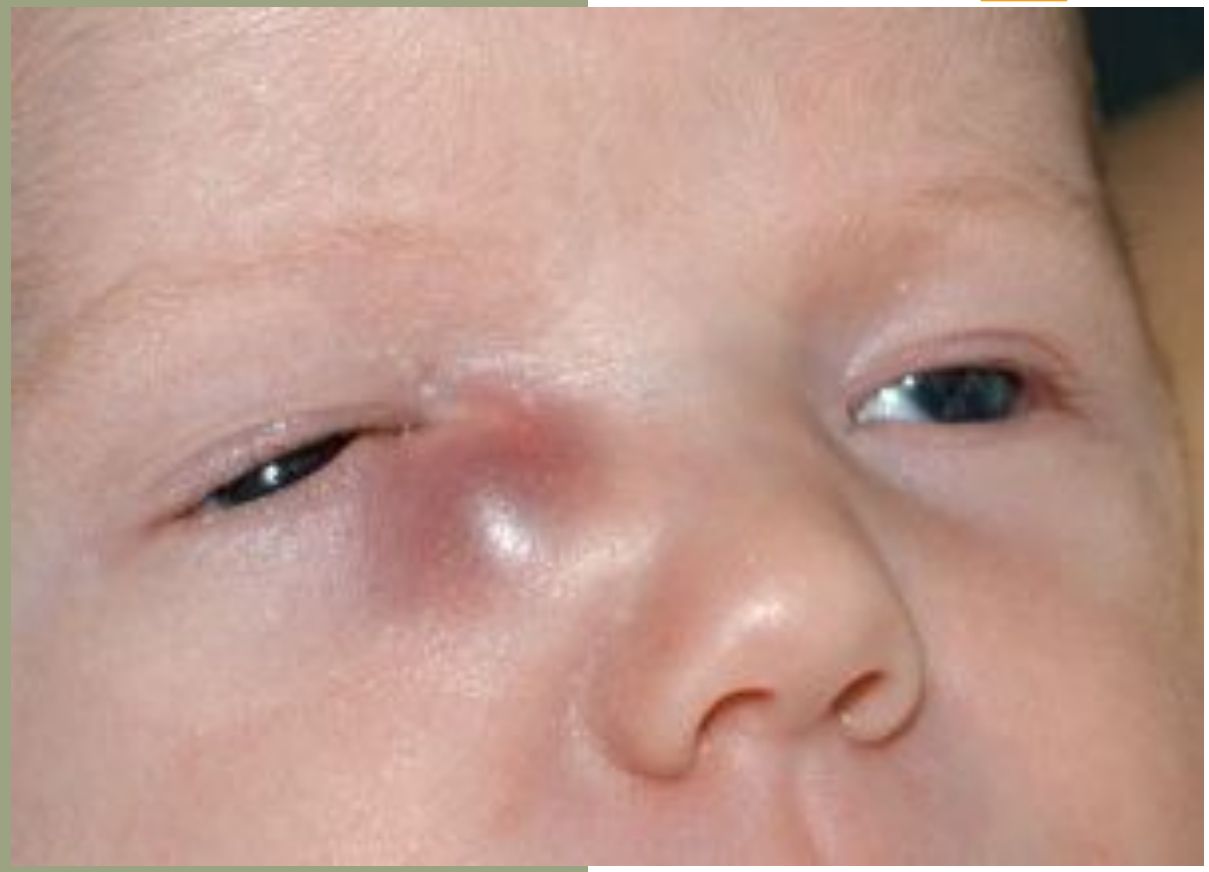
- Droopiness of Eyelid (ptosis) or Eyelid masses like hemangioma:

1. can cause Mechanical obstruction of vision and produce deprivation amblyopia
2. They can also cause visually significant Astigmatism that can result in Refractive amblyopia

- Any child with ptosis or eyelid mass should be referred for evaluation



REFERRAL IN LACRIMAL DRAINAGE SYSTEM CASES

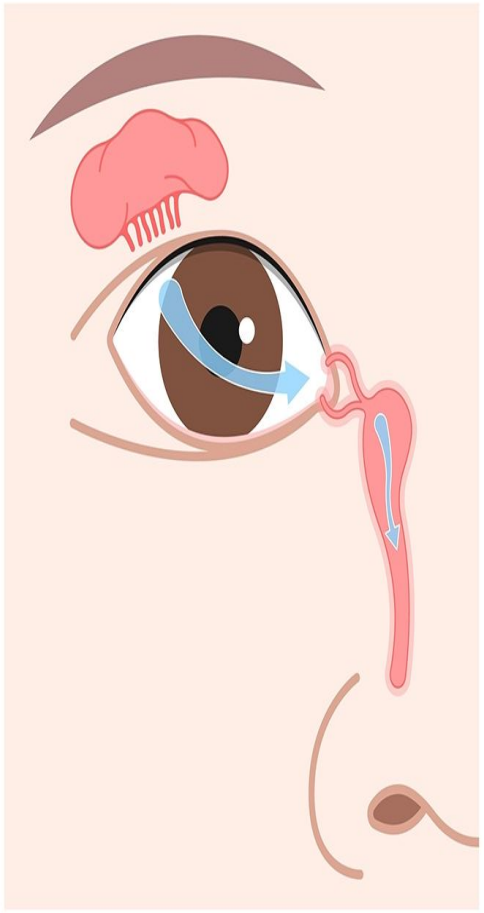


A. Dacryocele /Mucocele

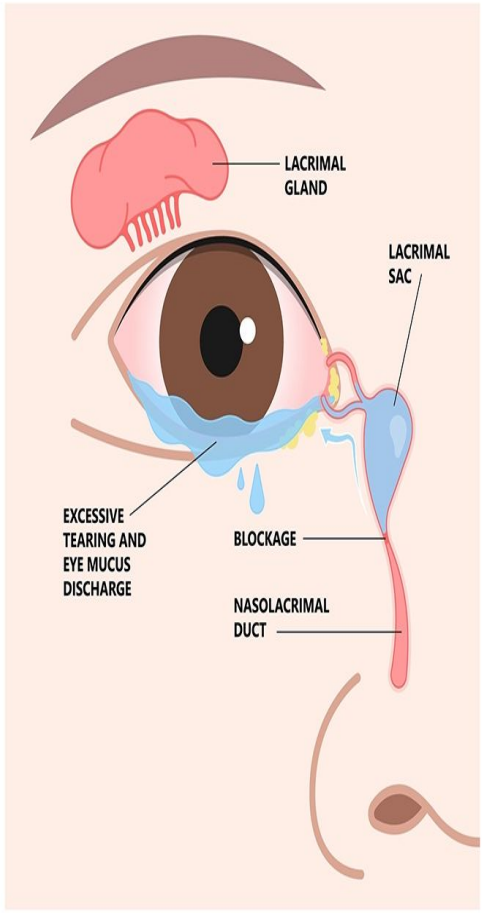
- Often heralded by:

1. clinically apparent enlargement of the lacrimal sac
2. and bluish discoloration of the overlying skin
3. present in the first weeks of life.

- Immediate referral is important as there is risk for secondary infection and neonatal sepsis



NORMAL TEAR DRAINAGE



BLOCKED TEAR DUCT

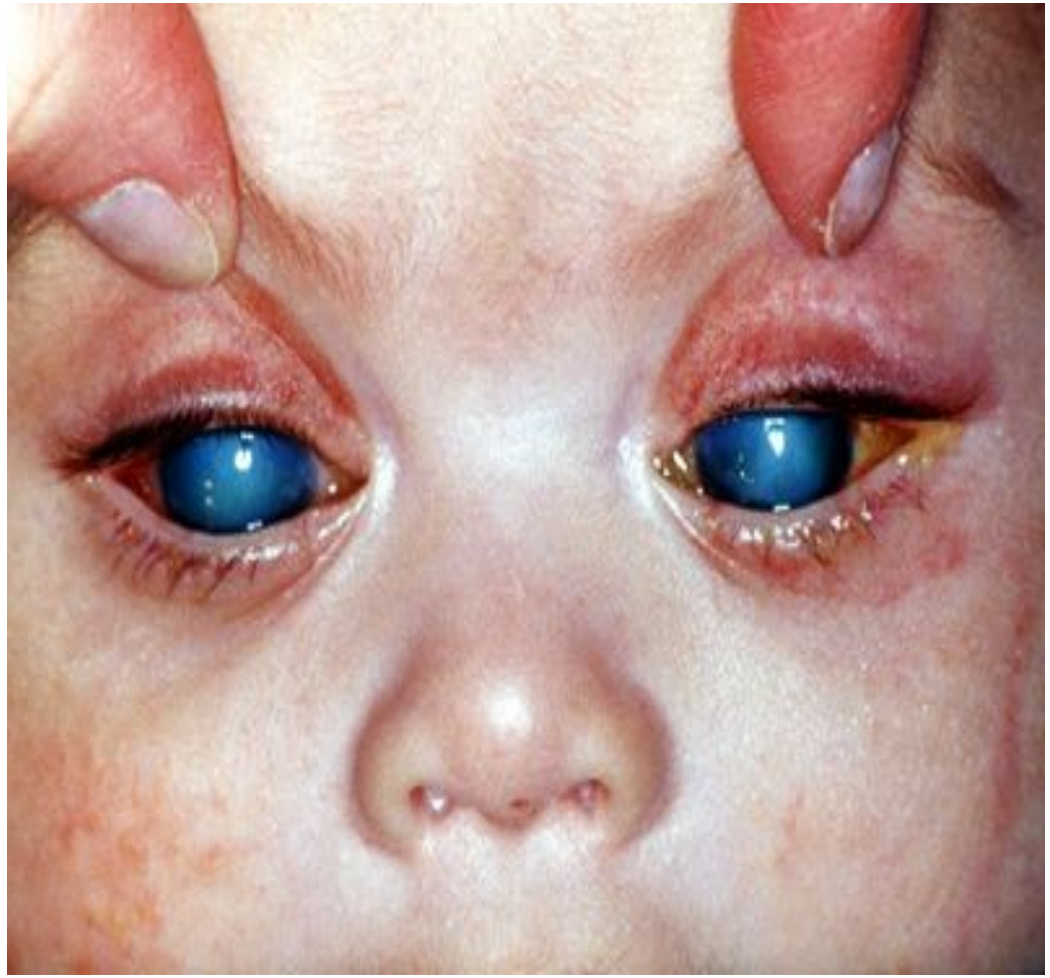
B. Dacryostenosis (Blocked tear duct)

- Excessive tearing is usually related to nasolacrimal duct obstruction
- and often resolves in the first year of life
- Tearing past 11-12 months requires a referral
- If there is recurrent nasolacrimal sac infection (dacryocystitis), earlier referral and treatment is appropriate

Referral in anterior segment cases

A. Congenital Glaucoma

- excess tearing is associated with photophobia, corneal enlargement and clouding
- an immediate referral should be made for possible congenital glaucoma
- Delays can cause:
  - irreversible optic nerve damage
  - permanent corneal enlargement
  - irregular astigmatism and amblyopia.

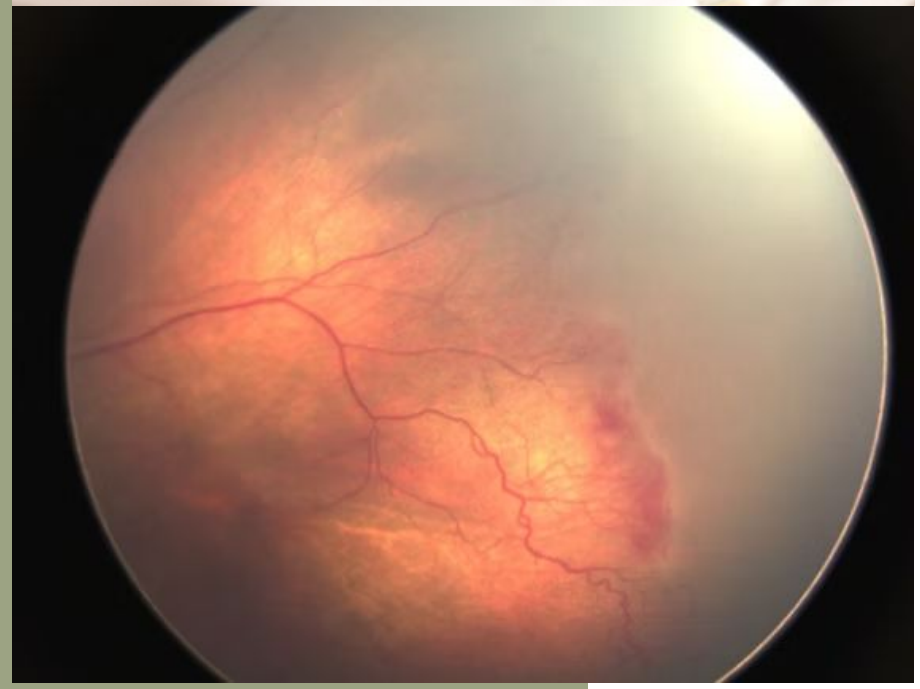


B. Conjunctivitis

- The most common cause is allergic conjunctivitis
- However other more serious etiologies should always be considered.
- Persistent conjunctivitis or red eye associated with photophobia and corneal scarring are potential signs of Herpetic (HSV) eye disease and require prompt evaluation
- also exclude other causes of ophthalmia neonatorum

REFERRAL IN OCULAR MEDIA OPACITIES

- Examination of the red reflex is essential in nonverbal children.
- Anytime there is a dull or asymmetric reflex a referral should be made
- If there is a white reflex (leukocoria) an urgent referral should be made to rule out possible retinoblastoma
- Infantile cataracts that are not extracted in the first 6-8 weeks of life may be associated with irreversible visual loss and nystagmus



REFERRAL IN PREMATURITY CASES

- Very premature infants, <1500g or <32wks, are at risk for development of strabismus and refractive errors

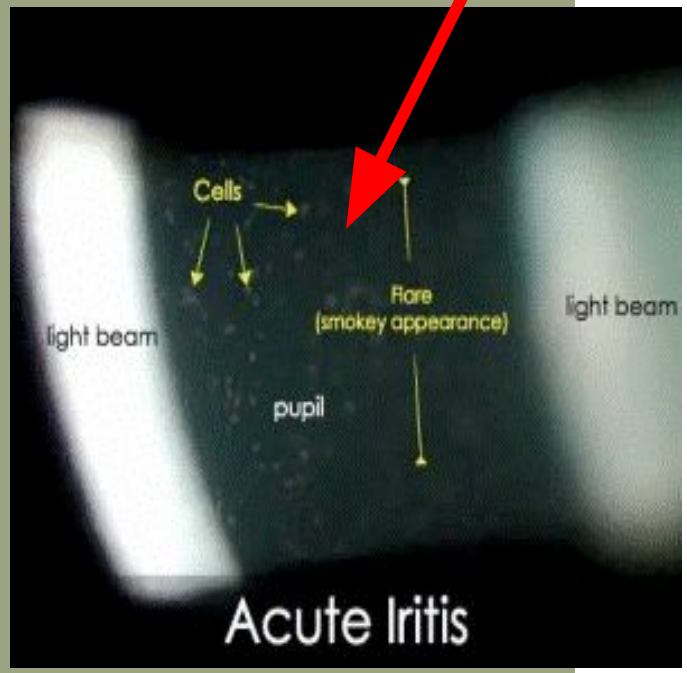
  even in the absence of retinopathy of prematurity (ROP).

- These infants should be examined at minimum 3 and 6 months post discharge from the NICU

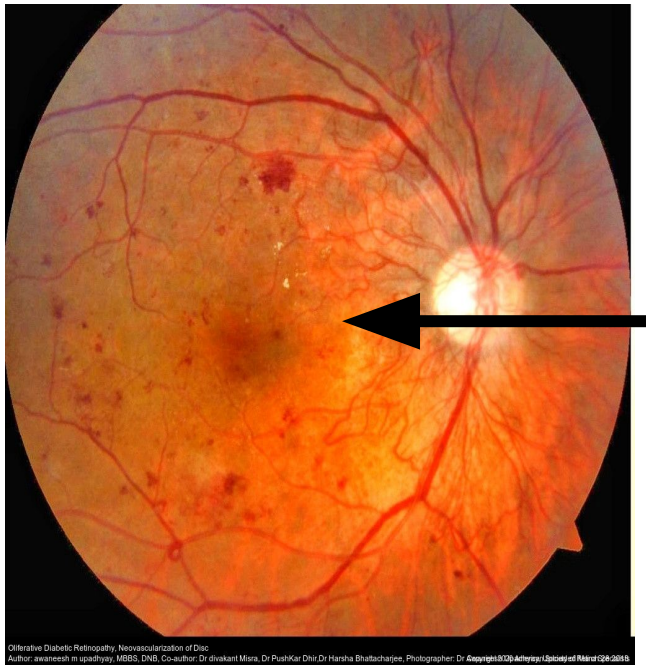
- or more frequently if there is a history of retinopathy of prematurity

SYSTEMIC DISORDERS

- Children with autoimmune disorders are at risk for uveitis (JRA, Lupus).
- Appropriate referral for screening should be made



- ✔ Children with Sickle Cell disease, Albinism, Hypertension, thyroid malfunction, sturge-weber syndrome are associated with ocular findings
- ✔ There should be a Baseline evaluation followed by appropriate eye examinations based on ocular findings.

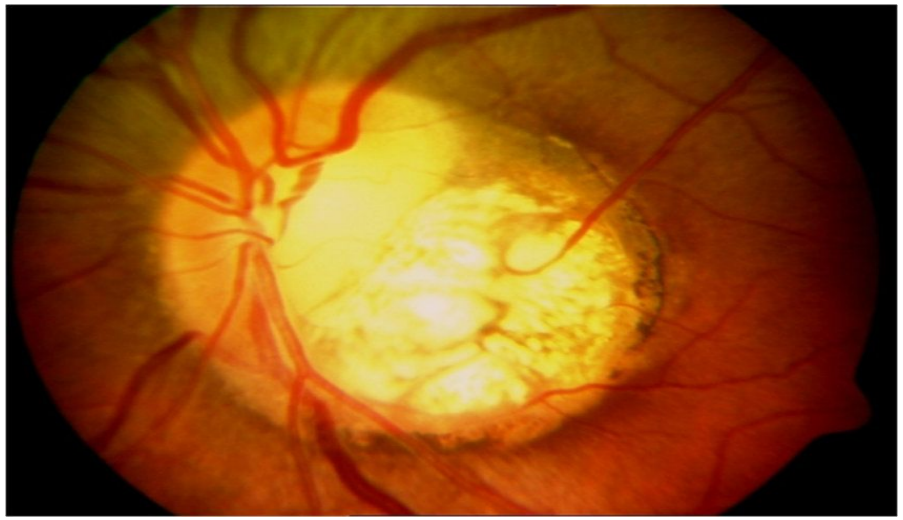


- ❖ Children with Type I or II Diabetes are at risk for development of retinopathy.
- ❖ Baseline evaluation followed by appropriate examinations for children with diabetes is recommended.

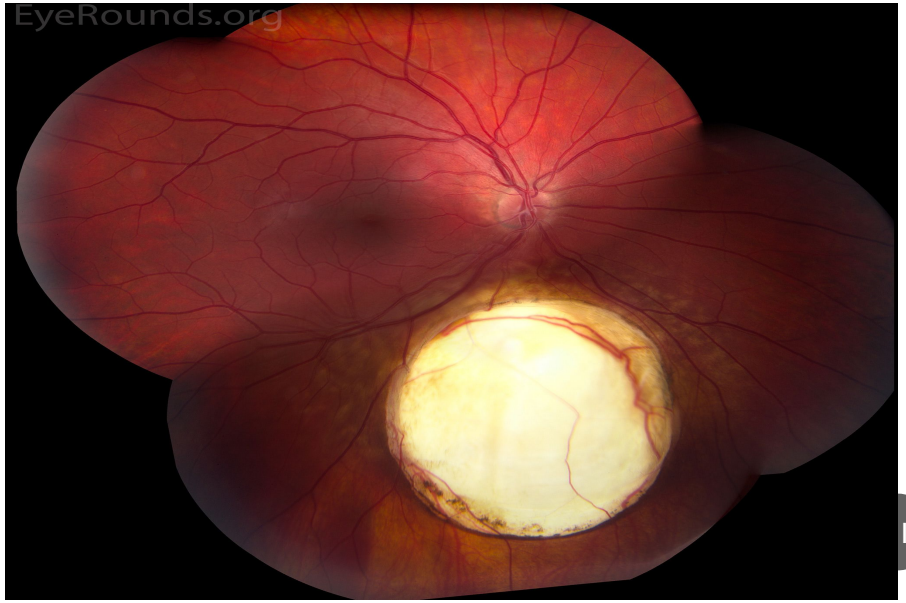
REFERRAL IN CONGENITAL SYNDROMES

- Subtle abnormalities of the anterior segment may be associated with significant underlying ocular maldevelopment e.g. :

small iris coloboma – "key hole pupil"



possible associated chorioretinal and optic nerve coloboma

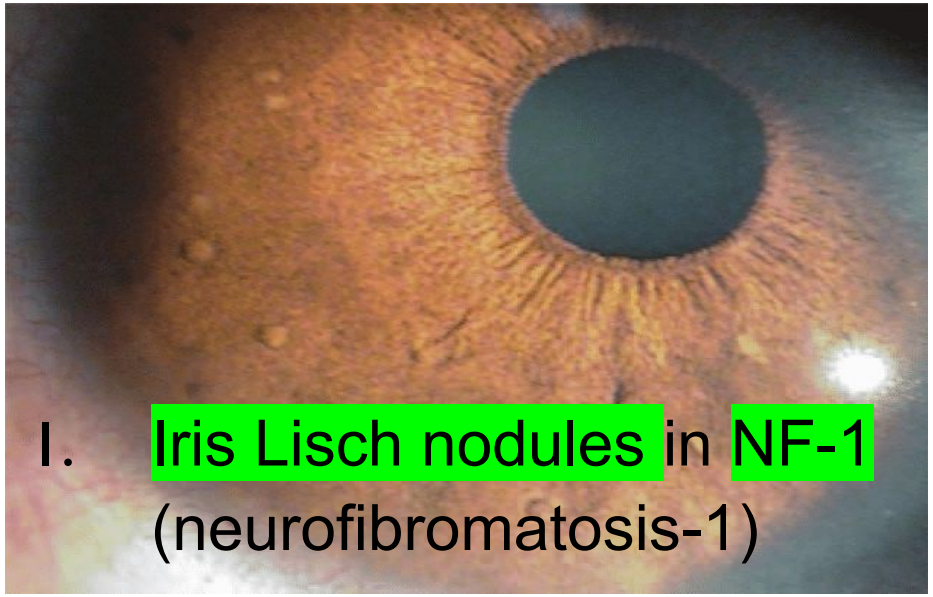


REFERRAL IN CONGENITAL SYNDROMES (2)

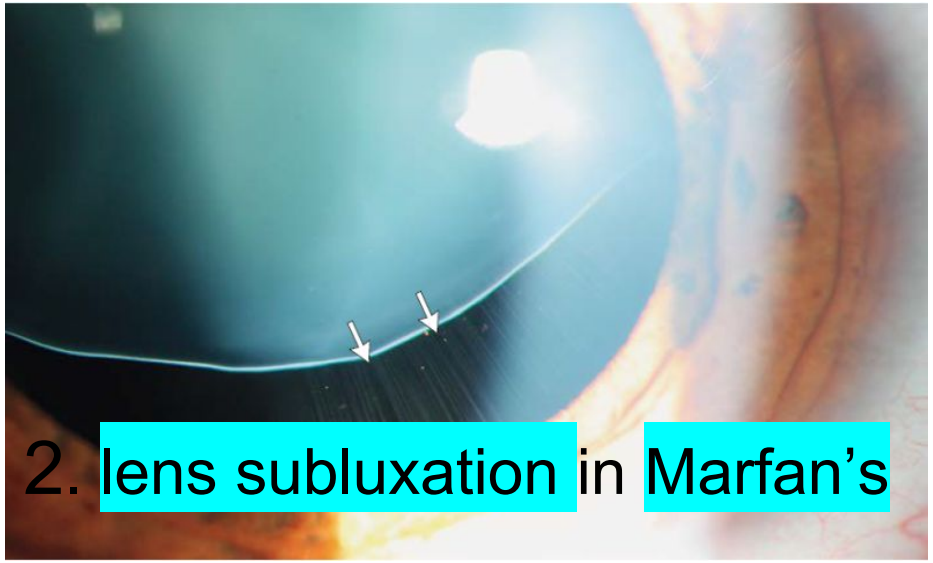
- Any congenital deformity that involves the orbit or optic pathways should be evaluated
- Many genetic syndromes have eye findings, for example:

Children with Down syndrome are at higher risk for cataracts and high refractive errors.

- Ocular examination can aid in diagnosis of certain syndromes, examples:

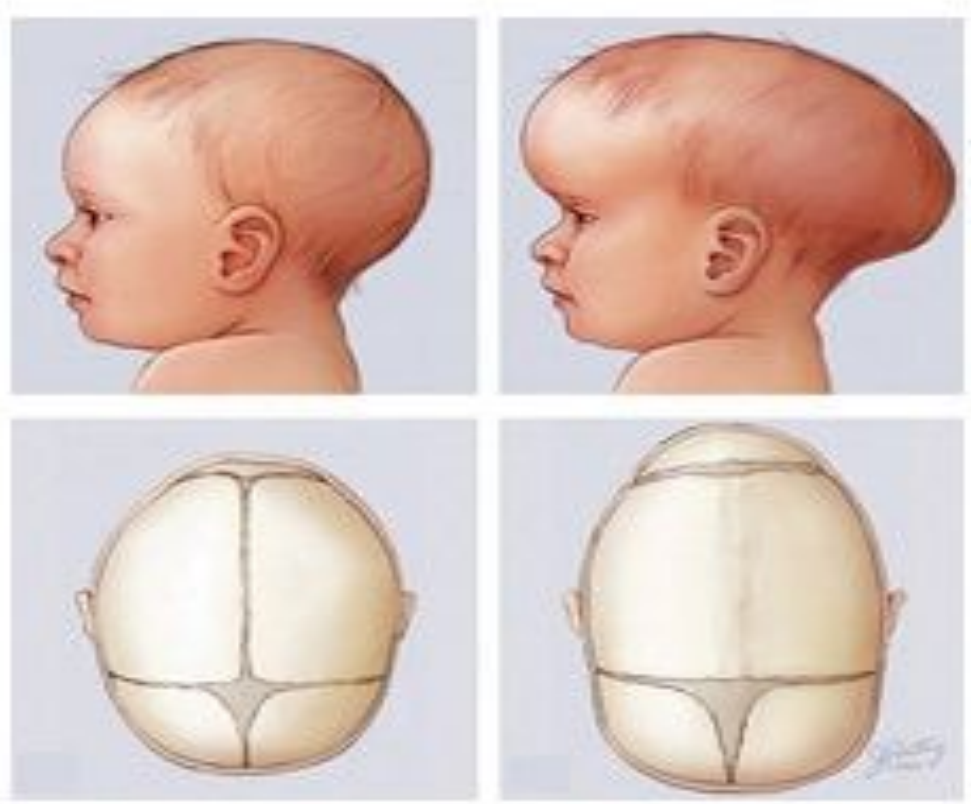


1. Iris Lisch nodules in NF-1 (neurofibromatosis-1)



2. lens subluxation in Marfan's

REFERRAL IN CONGENITAL SYNDROMES (3)

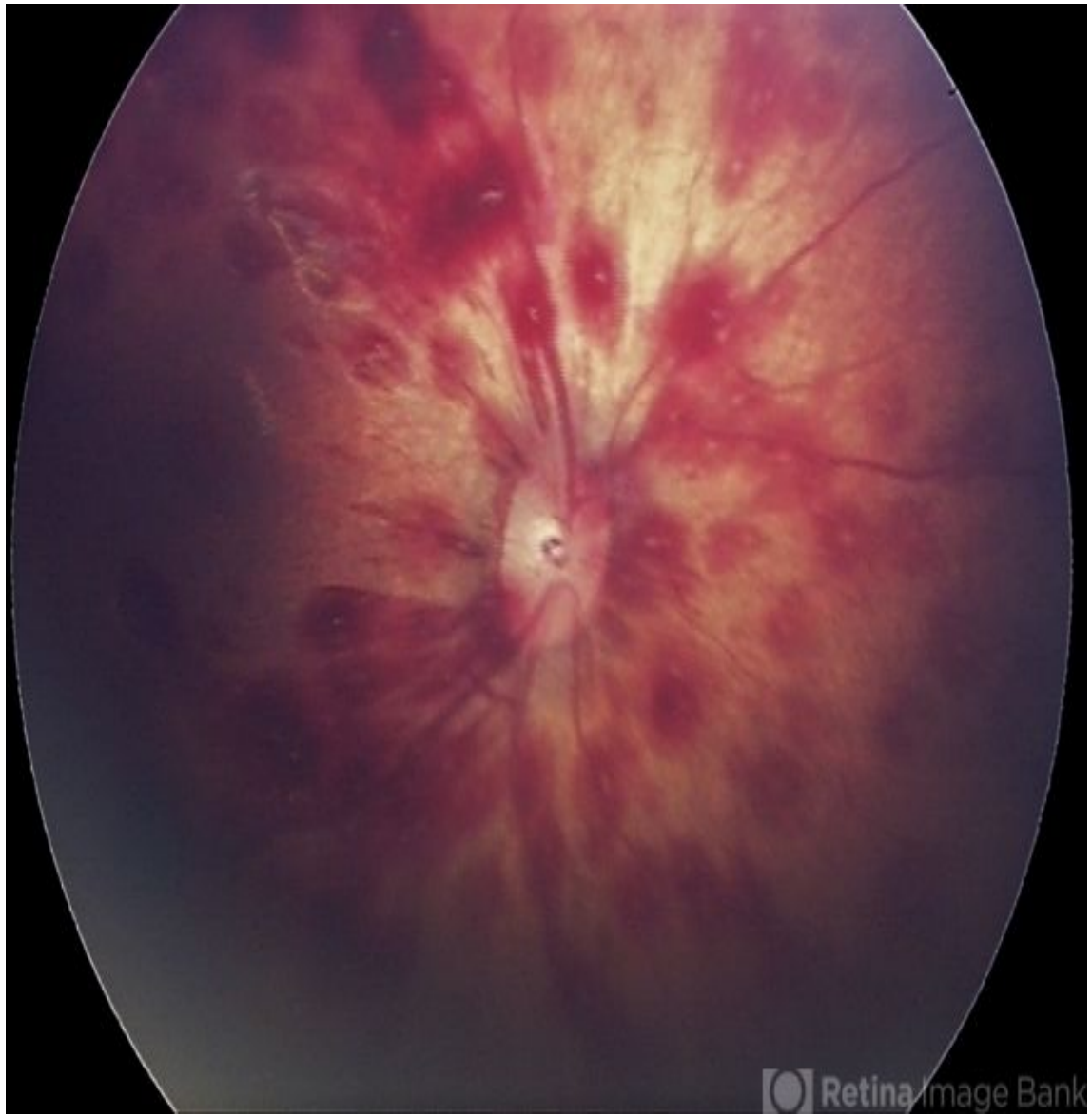


- Any child with a history of gestational drug /alcohol exposure should be evaluated for associated ocular abnormalities.

- Children with Craniosynostosis can have bony compression of the optic nerve and irreversible loss of vision
- Strabismus is also common in patients with bony abnormalities of the orbit.
- Any child with craniosynostosis should be evaluated for optic neuropathy and strabismus

REFERRAL IN A NON-ACCIDENTAL INJURY

- Retinal hemorrhages may be an important clue to possible "shaken baby syndrome"
- and are more common before age 3 months – due to poor neck control
- Any child with suspected non-accidental injury should have a dilated fundus examination.



REFERRAL IN HEADACHES

- Headaches can be secondary to refractive errors (need for glasses) or ocular motility issues like convergence insufficiency
- Any child with chronic headaches or complaining of headache after prolonged reading should have a comprehensive eye examination.

REFERRAL IN FAMILY HISTORY CASES

- A strong family history of serious childhood eye diseases:
  - Congenital Cataracts
  - Retinoblastoma
  - Congenital Glaucoma
  - Strabismus or Amblyopia (in a first-degree relative)

REFERRAL FOR VISUAL BEHAVIOR /ACUITY CASES

1. Lack of a blink response to a bright light
2. Failure to focus on a face or high-contrast object when held 8-12 inches away (30-40cm)
3. Absence of a social smile or eye contact by 3 months of age should prompt a referral

In premature babies corrected age should be used

4. Any difference of 2 lines or greater on vision charts between eyes should prompt a referral.
5. Any acuity less than 20/50 should be evaluated.

REFERRAL FOR OCULAR MISALIGNMENT CASES

1. Any misalignment of eyes (intermittent or constant) in children after the age of 4 months or constant misalignment of eyes at any age even before 4 months should be evaluated

   (By 4 months of age, babies' ocular alignment is stable and can look from near to far and back again)

2. Nystagmus at any age should be evaluated

REFERRAL FOR ANISOCORIA CASES

- Asymmetric Pupil Size (Anisocoria):
- Refer if there is A difference in pupil size greater than 1 mm, especially if associated with ptosis
- That is to rule out any underlying ocular or neurological disorder (e.g., Horner's Syndrome).

KEY REFERENCES AND SOURCES

1. AAP Surgical Advisory Panel: Guidelines for Referral to Pediatric Surgical Specialists

Pediatrics Vol. 110 No. 1 July 2002, pp. 187-191

2. Guidelines for pediatrician referrals to the ophthalmologist

Friedman LS, Kaufman LM. Peditr Clin North Am. 2003 Feb; 50(1):41-53

3. Ten critical diagnoses not to miss on a pediatric eye screening

Bothun ED. Minn Med. 2009 Jun; 92(6):34-7