



A Congenital Glaucoma Trick



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- 2 months old infant
- Full term
- Redness
- Tearing
- Enlargement of Lt eye since birth
- Referred











## EUA

Rt

VA: f & f  
 Ref: +2  
 HCD: 10.5 mm  
 Cornea: CLEAR  
 IOP: 10 mmHg (Perkins)  
 Conjunctiva: NAD  
 Lacrimal app.: -ve regurge  
 Motility: free  
 Fundus: C/D 0.1  
 Orbit: NAD

Lt

VA: f & f  
 Ref: +2  
 HCD: 10.5 mm  
 Cornea: CLEAR  
 IOP: 13 mmHg (Perkins)  
 Conjunctiva: **Congestion**  
 Lacrimal app.: -ve regurge  
 Motility: free  
 Fundus: C/D 0.1  
 Orbit: **Proptosis**



## DD

### Proptosis

- Developmental (e.g. Dermoid cyst)
- Orbital cellulitis
- Vascular malformations (e.g. Capillary hemangioma)
- Neoplasms (e.g. Retinoblastoma, Optic Glioma, Rhabdomyosarcoma, leukemia, lymphoma, histiocytosis, Ewing sarcoma and metastases)
- Inflammations (e.g. Orbital pseudotumour)

## DD

### Epiphora



## DD

### Epiphora

| Sign or symptom                          | Diagnosis   |
|--|---|
| Tearing with discharge                   | Nasolacrimal duct obstruction   |
| Tearing without discharge                | Impatient puncta  |
| Tearing with photophobia                 | Congenital glaucoma   |
| Tearing with blepharitis                 | Staphylococcus keratitis  |
| Tearing with pain                        | Keratitis, trichiasis, abrasion, or foreign body on cornea or under lid |
| Tearing with photophobia and torticollis | Posterior fossa tumour (1)  |

(1) Clarke W N, Paediatr Child Health. 2008 Jul-Aug;4(5): 325-326

## DD

### Macrophthalmia

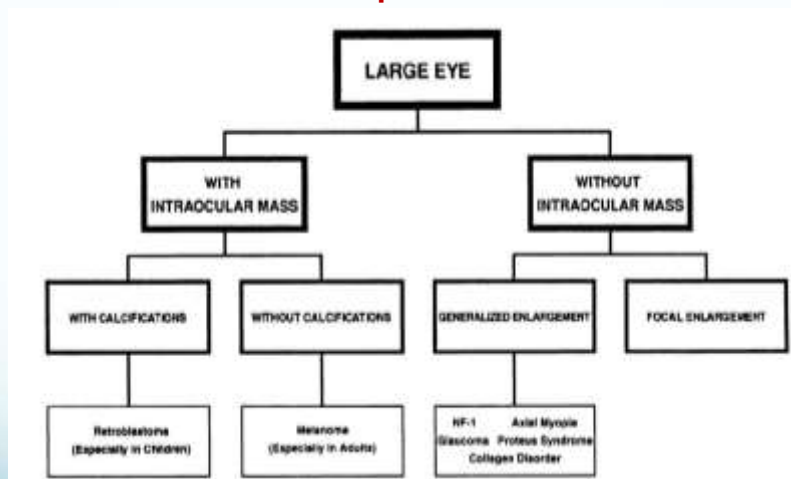




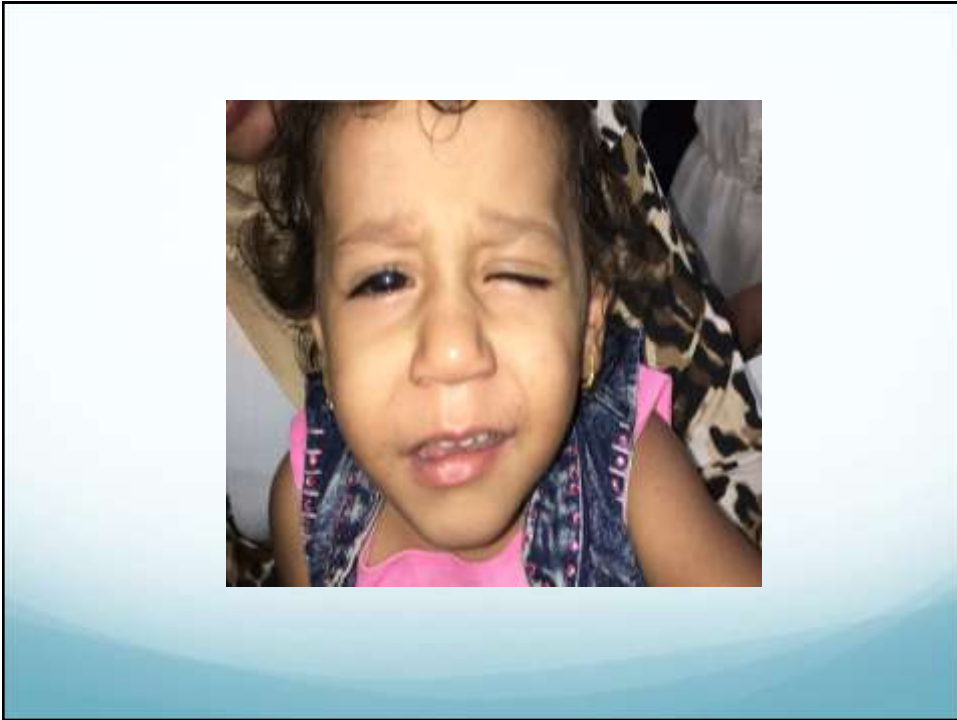
| Date 18/09/2018         |              | Years |                 |
|-------------------------|--------------|-------|-----------------|
| Gender: Male individual |              |       |                 |
| <u>TORCH PROFILE</u>    |              |       |                 |
| Test Name               | Result       |       | Reference Range |
| Toxoplasma IgM          | <b>0.54</b>  | Index | 0.0 - 0.5       |
| Toxoplasma IgG          | <b>40.1*</b> | IU/mL | 0.0 - 3.0       |
| CMV IgM                 | <b>1.23</b>  | Index | 0.0 - 0.4       |
| CMV IgG                 | <b>65.1*</b> | IU/mL | 0.0 - 15.0      |
| Rubella IgM             | <b>0.44</b>  | Index | 0.0 - 0.6       |
| Rubella IgG             | <b>52.3*</b> | IU/mL | 0.0 - 5.0       |
| Herpes 1 IgM            | <b>1.32</b>  | IU/mL | 0.0 - 10.0      |
| Herpes 1 IgG            | <b>46.1*</b> | IU/mL | 0.0 - 10.0      |
| Herpes II IgM           | <b>0.33</b>  | IU/mL | 0.0 - 10.0      |
| Herpes II IgG           | <b>5.12</b>  | IU/mL | 0.0 - 10.0      |

DD

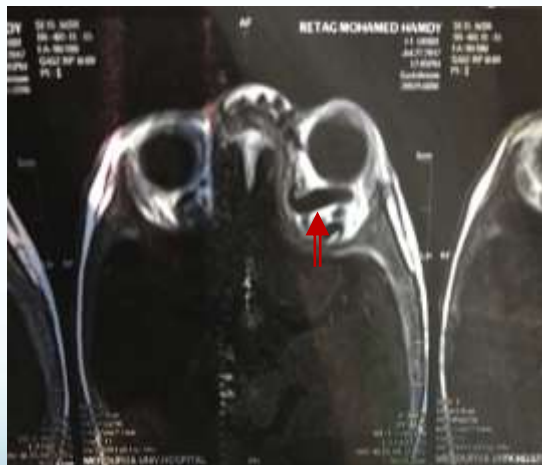
## Macrophthalmia



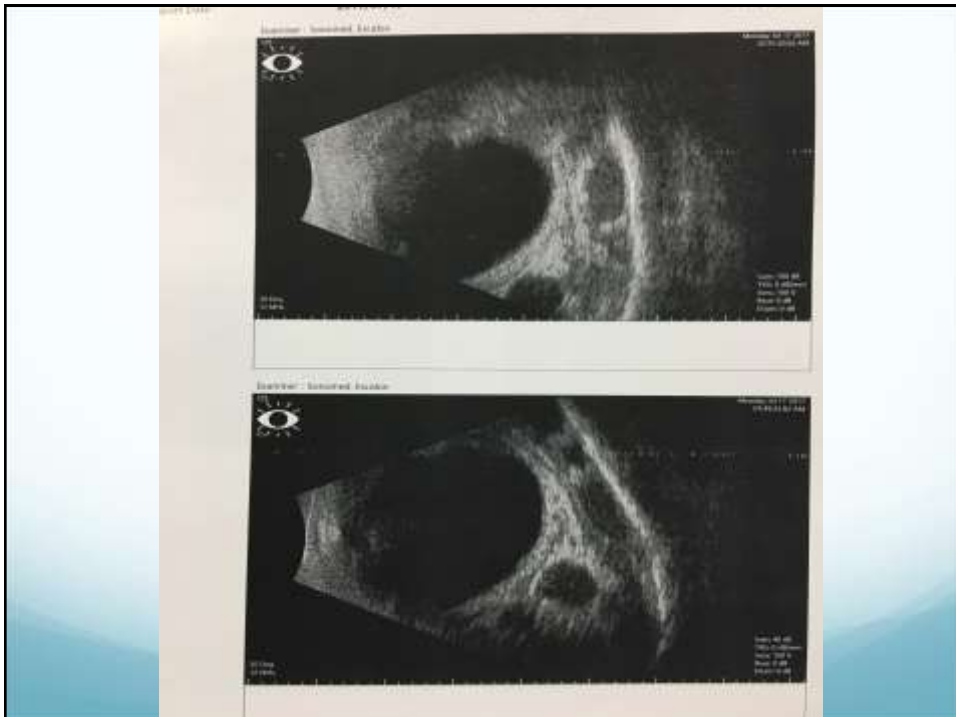
Smith M and Castillo M, RadioGraphics 2004;14:721-728



## MRI Orbits



## MRI Orbits



# Orbital Varices

## Etiology and Epidemiology

- Venous malformations (vascular hamartomas)
- Commonly present from early childhood
- Most varices are unilateral and located superonasally

## Symptoms and Signs

- Proptosis is the common presenting sign
- It is intermittent and slowly progressive
- ↑ upon increasing the orbital venous pressure (e.g. coughing, straining, Valsalva maneuver and bending of the head down)

## Complications

- Acute orbital hge
- Thrombosis
- Optic nerve compression

# Management

- **Conservative**
- **Sugery (Indications):**

## **OPTIC NERVE COMPRESSION**

Nonresolving episodes of thrombosis

Severe disfiguring proptosis or globe displacement

Significant pain

# Management

- **Specialized techniques:**

Coil embolization

Carbon dioxide laser



## Orbital venous anomaly presenting with orbital hemorrhage.

Kim YJ, et al. Jpn J Ophthalmol. 2009.  
[Show full citation](#)

### Abstract

**PURPOSE:** To report on the characteristics of patients with orbital venous anomaly presenting with acute orbital hemorrhage.

**METHODS:** We retrospectively reviewed the clinical and radiologic findings of a case series of eight orbital venous anomaly patients who presented with orbital hemorrhage. Charts of patients diagnosed as having orbital venous anomaly who initially presented with orbital hemorrhage were selected.

**RESULTS:** The eight patients with orbital venous anomaly (one man and seven women) ranged in age from 7 to 66 years (median, 22 years). The average duration of symptoms was 7 days (range, 1-30 days). All eight patients were totally asymptomatic prior to their acute presentations. Orbital computed tomography

## Take home message

- PCG can be misdiagnosed by certain conditions
- Proper history taking is always the clew
- Cornea & optic nerve are the keys to diagnose PCG
- Orbital varices can cause and be presented by glaucoma
- If Retinoblastoma is suspected, request MRI and not CT

