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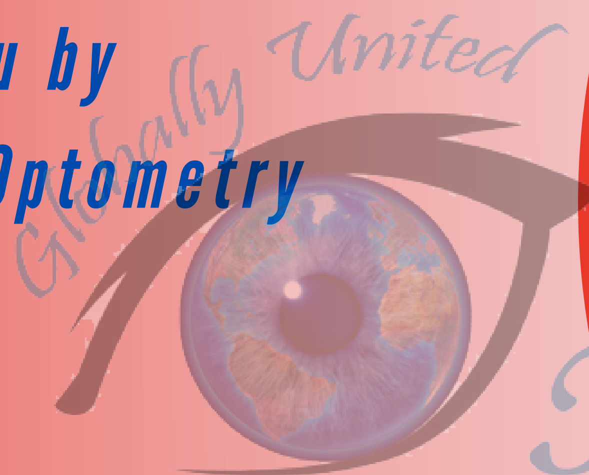

# CLINICAL PEARLS IN PAPILLOEDEMA

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# INTRODUCTION

- Usually presented as a bilateral swelling of the optic nerves secondary to elevated **intracranial pressure.**
- Unilateral papilloedema rarely occurs.
- The level of elevation/swelling can be **asymmetric** between both eyes.
- May be **symptomatic or asymptomatic** depending on the severity or level of papilledoema.
- It is a secondary condition where it can be associated with **neurological tumors and hydrocephalus**.
- Pappilloedema cases should be referred immediately due to their sight-threatening & life-threatening risks.

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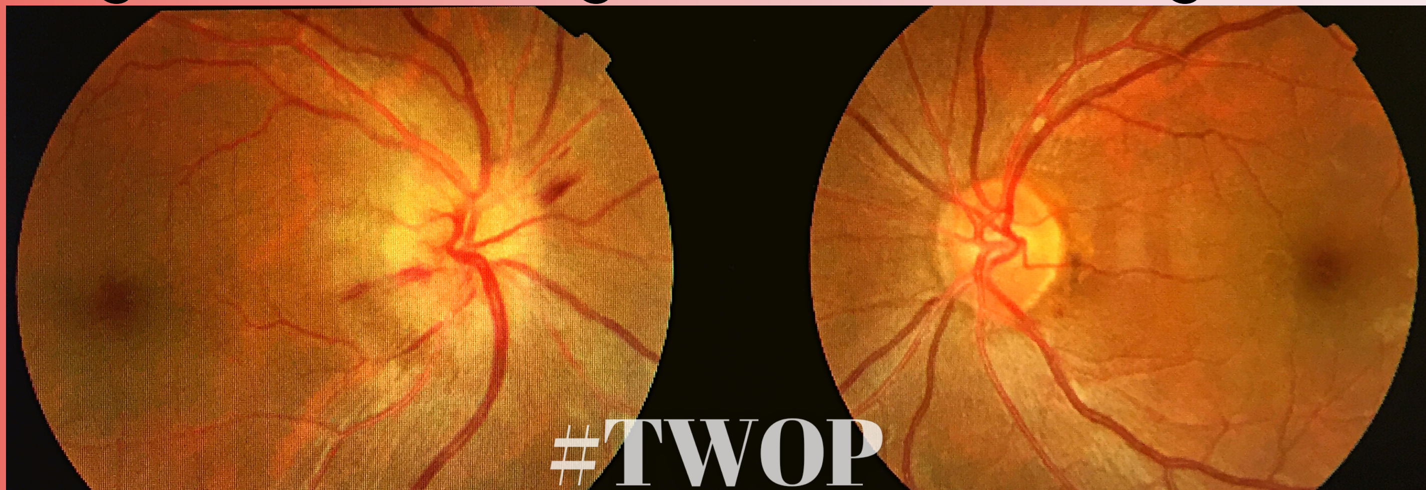

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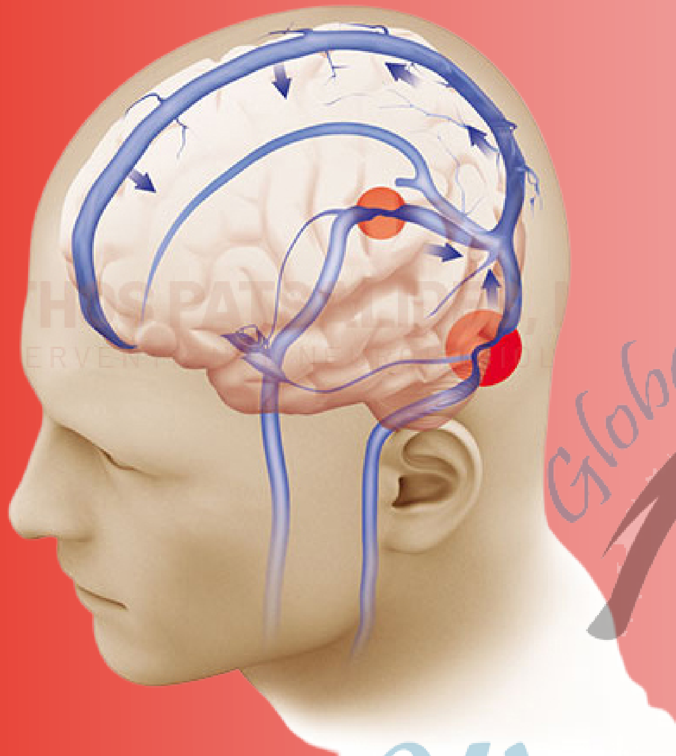
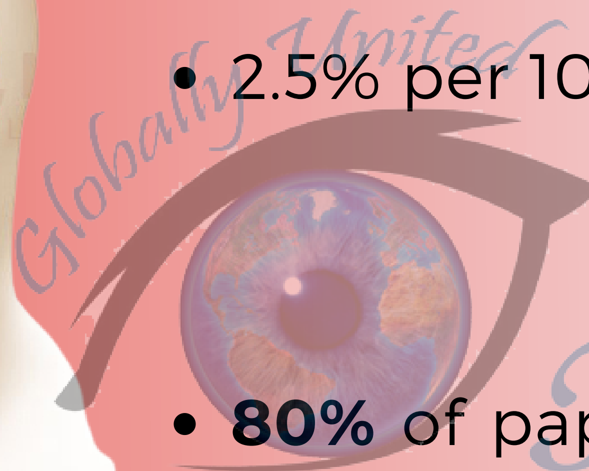
# INCIDENCE & ETIOLOGY





## Incidence

- 2.5% per 100,000 of the population.

## Etiology

- **80%** of papilloedema cases are caused by **idiopathic intracranial hypertension** (IIH) or pseudotumor cerebri is the elevated pressure of the brain,

- Where causes are generally idiopathic. High risk factors were associated with **overweight women of childbearing age** (20-45 years old)

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# SYMPTOMS

- Blurry vision
- Transient vision loss
- Diplopia
- Headaches such as pulsatile tinnitus, where it is notably worse in the morning and during Valsalva maneuvers.
- Vomiting where it is projectile in nature with or without nausea in the mornings.

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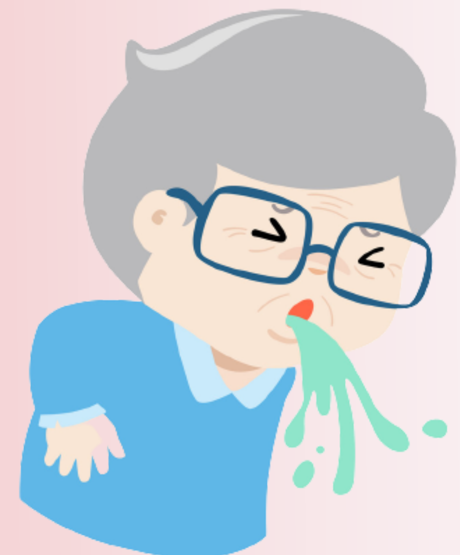

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# VISUAL CHANGES

- **Transient visual obscurations** (TVOs) are the greying out or dimming of the vision lasting **1-2 secs long.** Usually occurs unilaterally.
- Monocular **full field scotomas** caused by the **ischemic effect of the central optic nerve** blood supply secondary to elevated inferior vena cava pressure (IVCP).
- **Diplopia** signifies that CN VI is affected the most due to its circuitous route from the pons to its point of attachment, more prone to compression against the petrous wing of the temporal bone.
- Headaches, pulsatile tinnitus is most known as the **'whooshing' sound** which is synchronous with the pulse. This is due to a **buildup of cerebrospinal fluid** (CSF) which leads to an **increase in intracranial pressure** (ICP). **Worse** with Valsalva maneuvers during c**oughing, sneezing and nose blowing.**

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# CLINICAL PEARLS

- **80% of Papilloedema** cases are associated with **IIH**.
- The remainder tend to be down to: Space occupying lesion such as **brain tumor** and **brain hemorrhages.**
- Swelling of the brain such as **hydrocephalus** and **meningitis.**
- **90% of IIH** patients are **symptomatic,** so the chances of picking up asymptomatic papilloedema in a routine eye examination is extremely rare.
- There is not one test that you can do to determine the presence of papilloedema. In fact, it is a culmination of all the clinical equipment you have. We refer to this as a multi-modal approach, like putting pieces of a jigsaw together.
- Most research nowadays across the world focusing on IIH and papilloedema is using **OCT as a surrogate marker** for the measurement and **management of ICP in IIH patients.**

Wow, what a cool content

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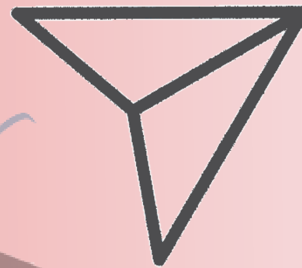

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