

وسهلا



أهلا

يُمنع أخذ السلايدات بدون  
إذن المحرر واي اجراء  
يخالف ذلك يقع تحت طائلة  
المسؤولية القانونية  
جميع المعلومات للاستخدام  
التعليمي فقط

الأستاذ الدكتور يوسف حسين

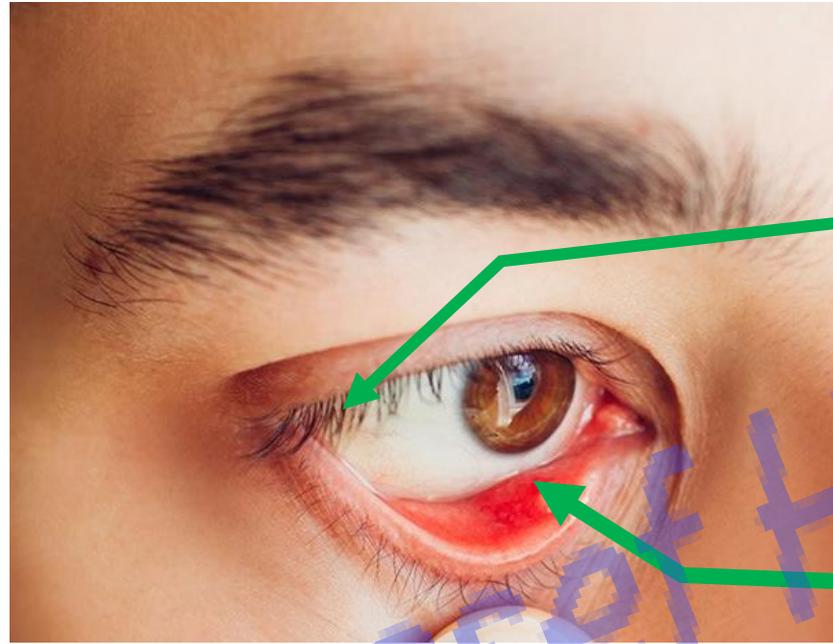
كلية الطب - جامعة مؤتة - الأردن

دكتورة من جامعة كولونيا المانيا

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الواتس (أي استفسار)  
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# Eyelid



Free edge containing  
eye lashes

Conjunctiva

- **Structures of the eye lid:**

- **Skin:** thin, loose, free edge containing hairs.
- **Superficial fascia:** devoid of fat and contains palpebral part of orbicularis oculi muscle.
- **Tarsus:** Thin plate of **dense fibrous tissue**
- **Conjunctiva:** a mucous membrane lining the inner surfaces of the eye lids.

- **Blood supply and nerves of the eye lids**

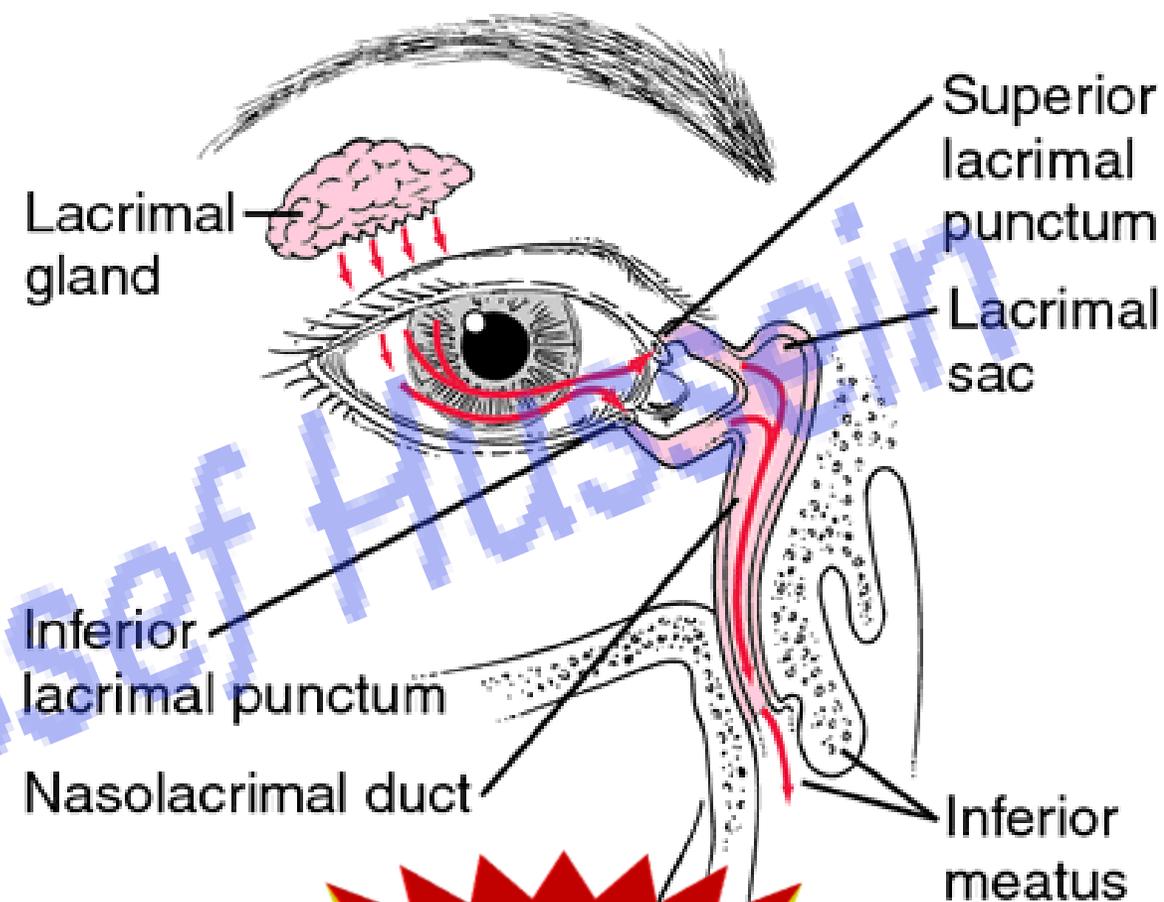
**a- Upper eye lid**

- 1- **Medial part** by supratrochlear nerve and vessels.
- 2- **Middle part** by the supraorbital nerve and vessels.
- 3- **Lateral part** by lacrimal nerve and vessels.

**b- Lower eye lid;**

- 1- **Medial part** by Infratrochlear nerve and vessels.
- 2- **Lateral part** by Inferior palpebral nerve and vessels.

- **Lacrimal gland:** has 2 parts:
  - (a) **Main part:** in the **lacrimal fossa** in the anterolateral part of the roof of the orbit.
  - (b) **Palpebral part:** embedded in the **lateral part of upper eye lid.**
- The lacrimal gland gives about **12 lacrimal ducts** which open into the superior fornix of the conjunctiva.
  - **Lacrimal sac**
- Lies in the lacrimal groove.
- The **nasolacrimal duct** arises from the sac and passes through the nasolacrimal canal to open in **the inferior meatus of the nose.**



**Lacrimal  
apparatus**

- **Lacrimal gland:**

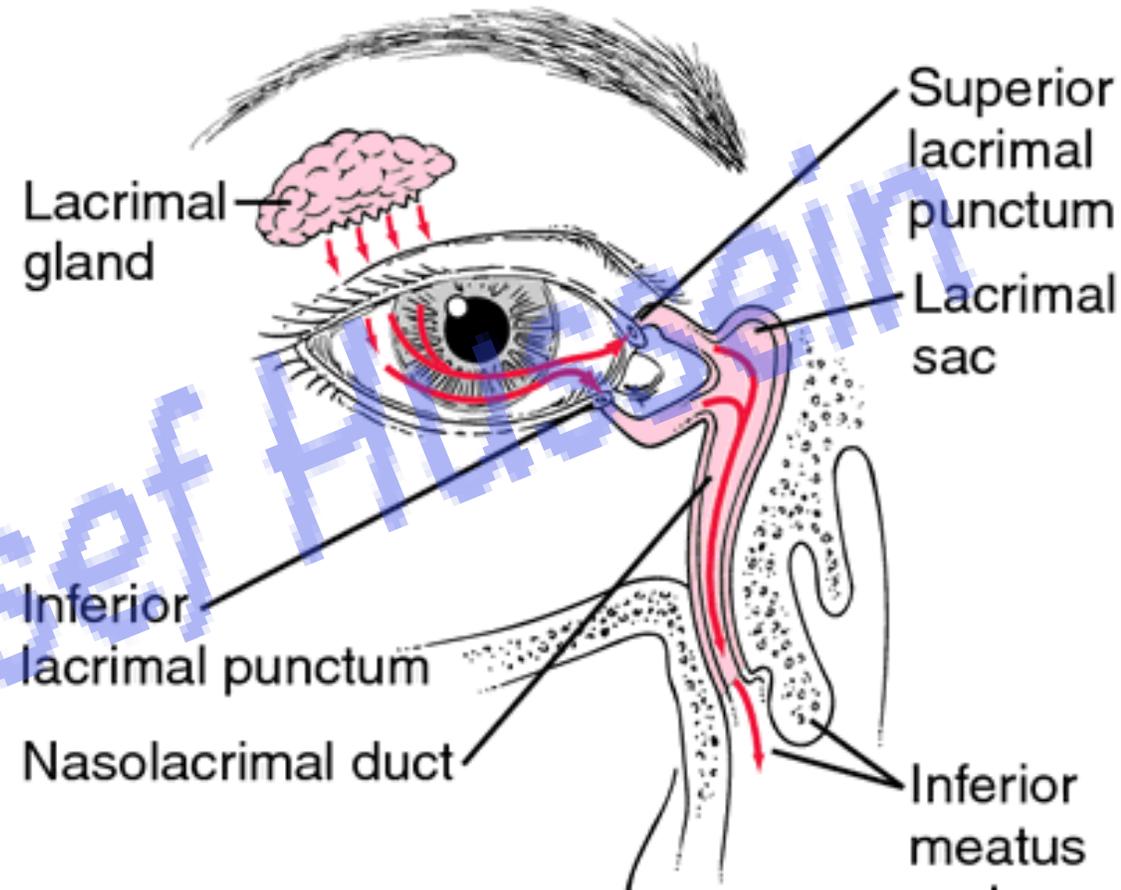
- **Blood supply:** ophthalmic artery.

- **Nerve supply:**

1. **Sensory**, ophthalmic nerve.

- 2- **Parasympathetic root** from **special lacrimatory nucleus in the pons** → **facial nerve** → greater petrosal nerve → pterygoid canal → relay in the pterygopalatine ganglion → postganglionic fibres → zygomatico-temporal nerve → lacrimal nerve → gland.

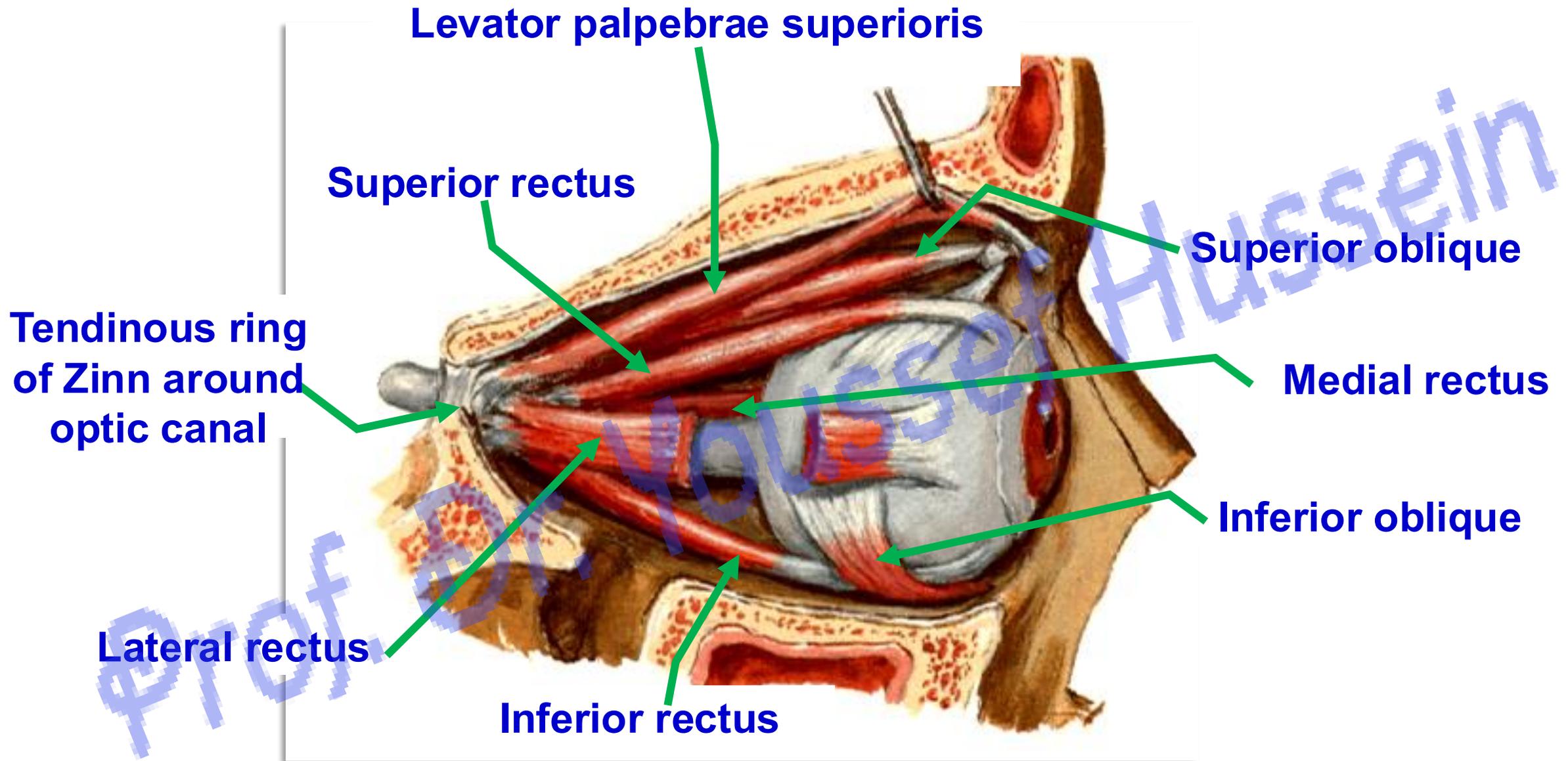
- 3- **Sympathetic fibers** around ophthalmic artery from **superior cervical sympathetic ganglion**.





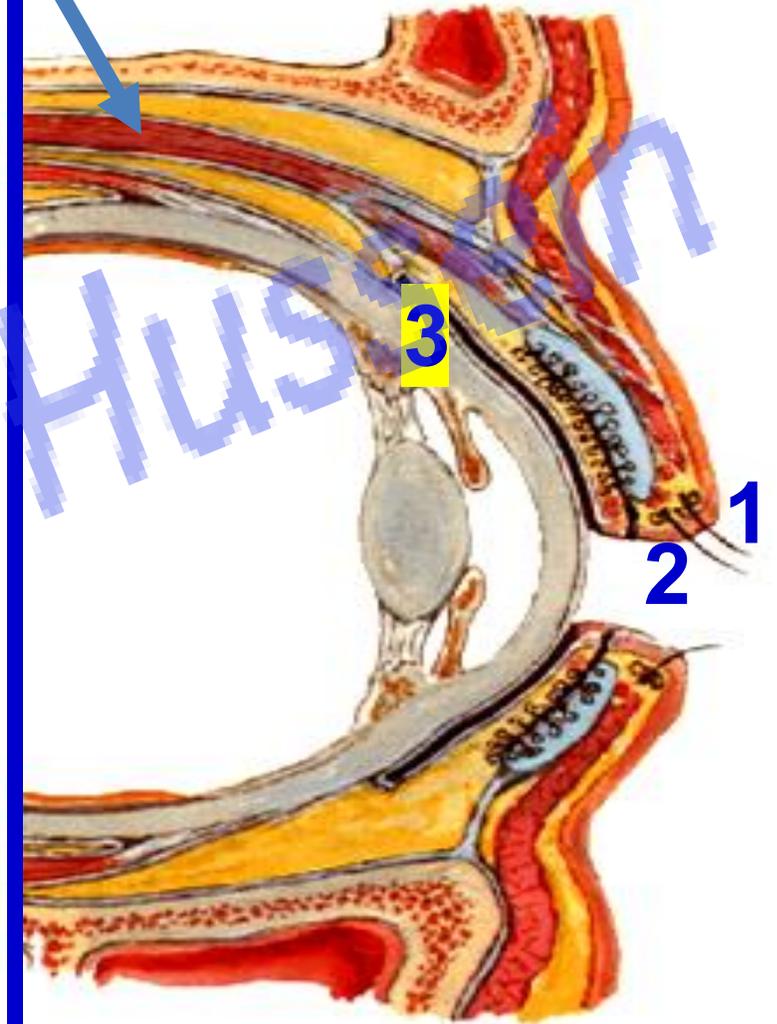
# Extraocular muscles

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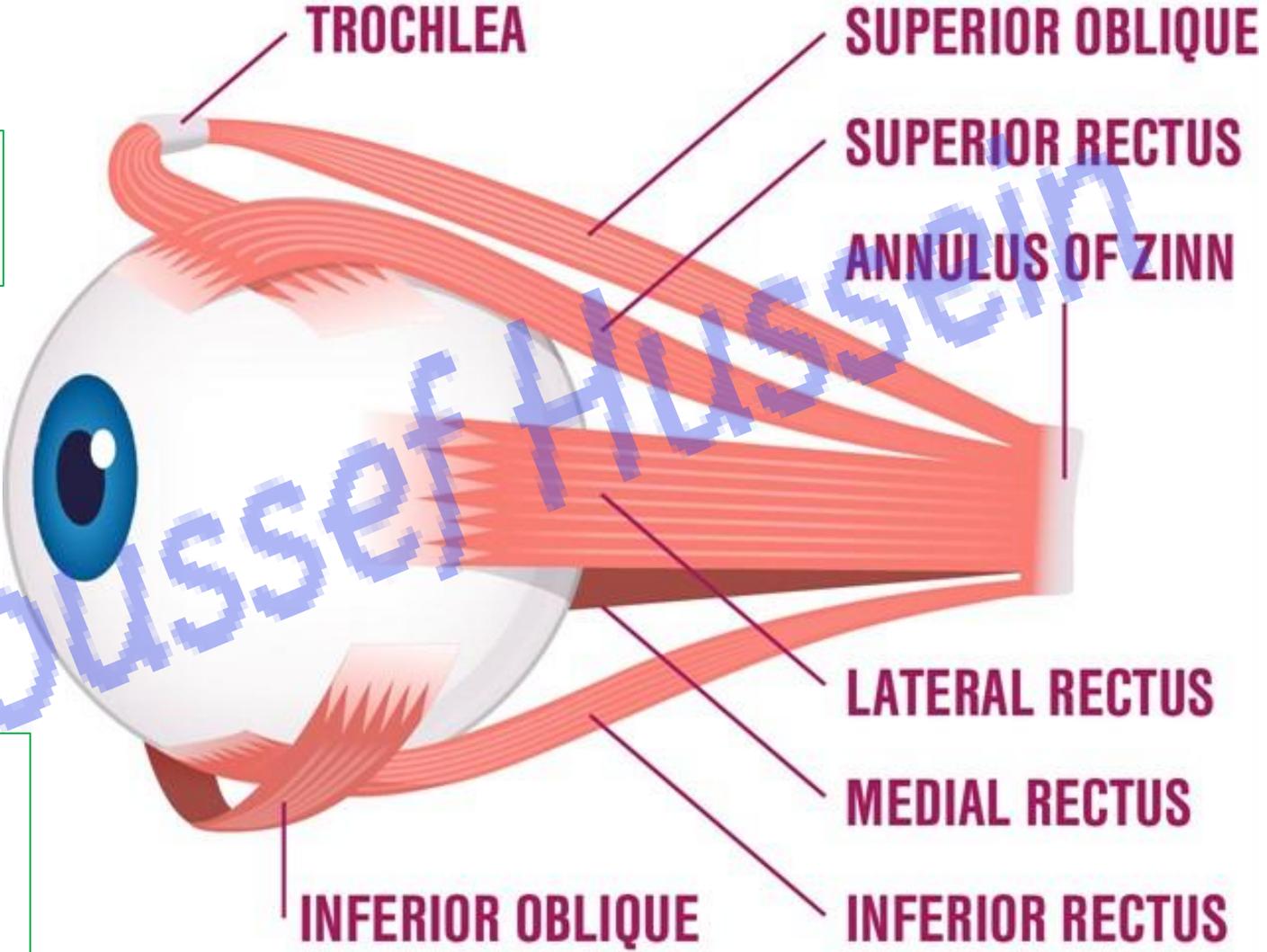
- **Levator palpebrae superioris**

- **Origin:** from the posterior part of the roof of orbit just in front of the optic canal.
- **Insertion:** the muscle passes forwards below the roof and divides into **3 slips** inserted into:
  - 1) The skin of the upper eye lid.
  - 2) The tarsus of the upper eye lid.
  - 3) The upper fornix of conjunctiva.
- **Nerve supply:** superior division of the oculomotor nerve.
- **Action:** elevates upper eye lid and upper fornix of conjunctiva.



- **Origin of recti muscles** from tendinous ring of Zinn

- **Insertion of recti muscles** into the sclera behind the corneoscleral junction (limbus)

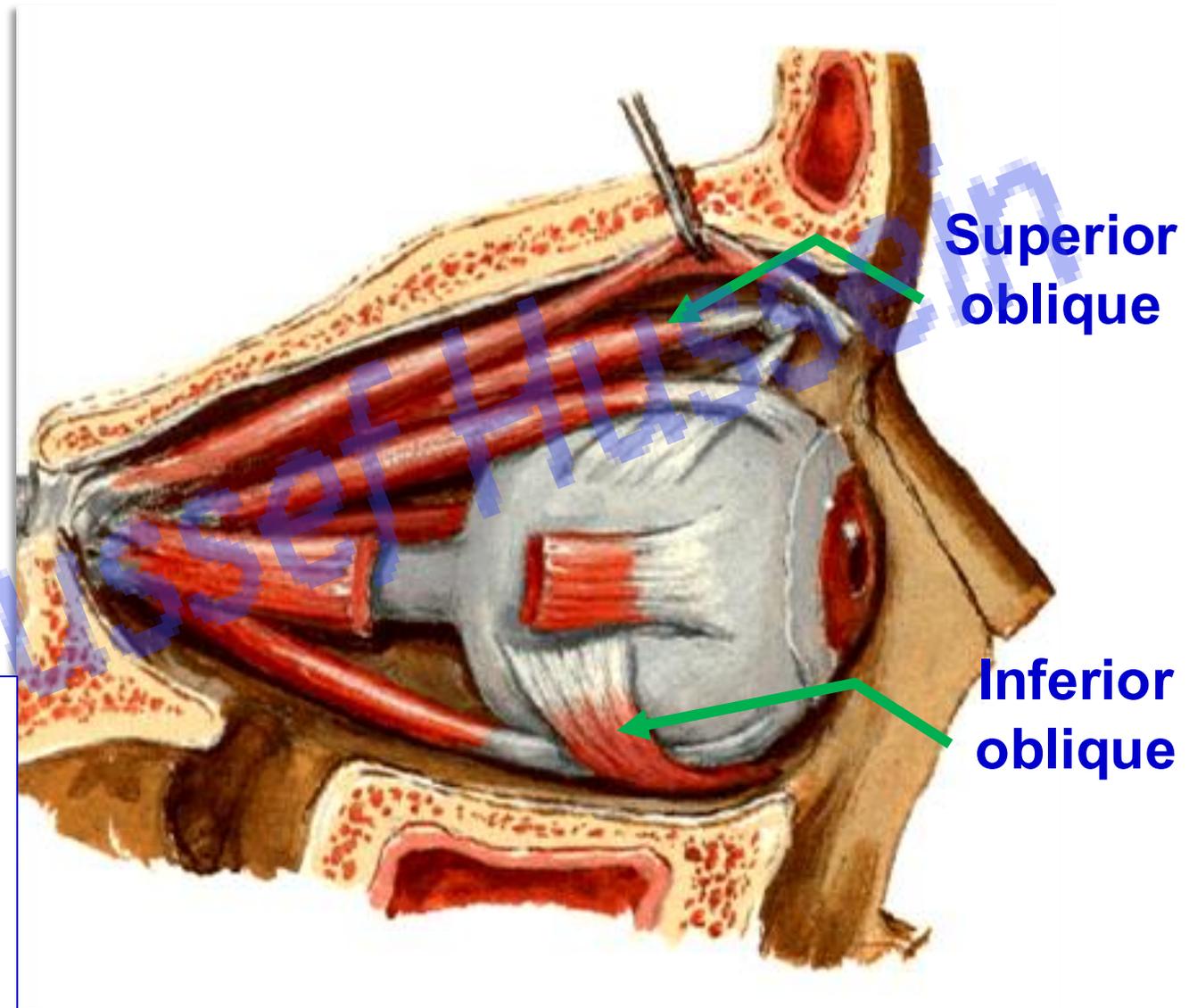


- **Superior oblique**

- **Origin** from roof of orbit just in front of the optic canal
- Passes **forwards**, At anteromedial angle of the orbit it passes through a **trochlea**. Then it curves **downward, backwards and laterally**
- **Inserted** into the sclera **behind** the coronal equator of the eyeball.

- **Inferior oblique**

- **Origin:** from floor of orbit lateral to the lacrimal groove (anteriorly).
- Passes upwards, backwards and laterally
- **Inserted** into the sclera **behind** the coronal equator of the eyeball



▪ **Nerve supply of the extra ocular muscles**

- **All extraocular muscles (Nr = 7) are supplied by Oculomotor nerve (3rd) except**

**(1) Lateral rectus (LR): supplied by the abducent (6th) nerve**

**(2) Superior oblique (SO) supplied by the trochlear (4th) nerve**

**Actions of extraocular muscles**

turns the eye upward and medially

turns the eye upward and laterally



turns the eye medially

turns the eye laterally

turns the eye downward and medially

look your shoulder!

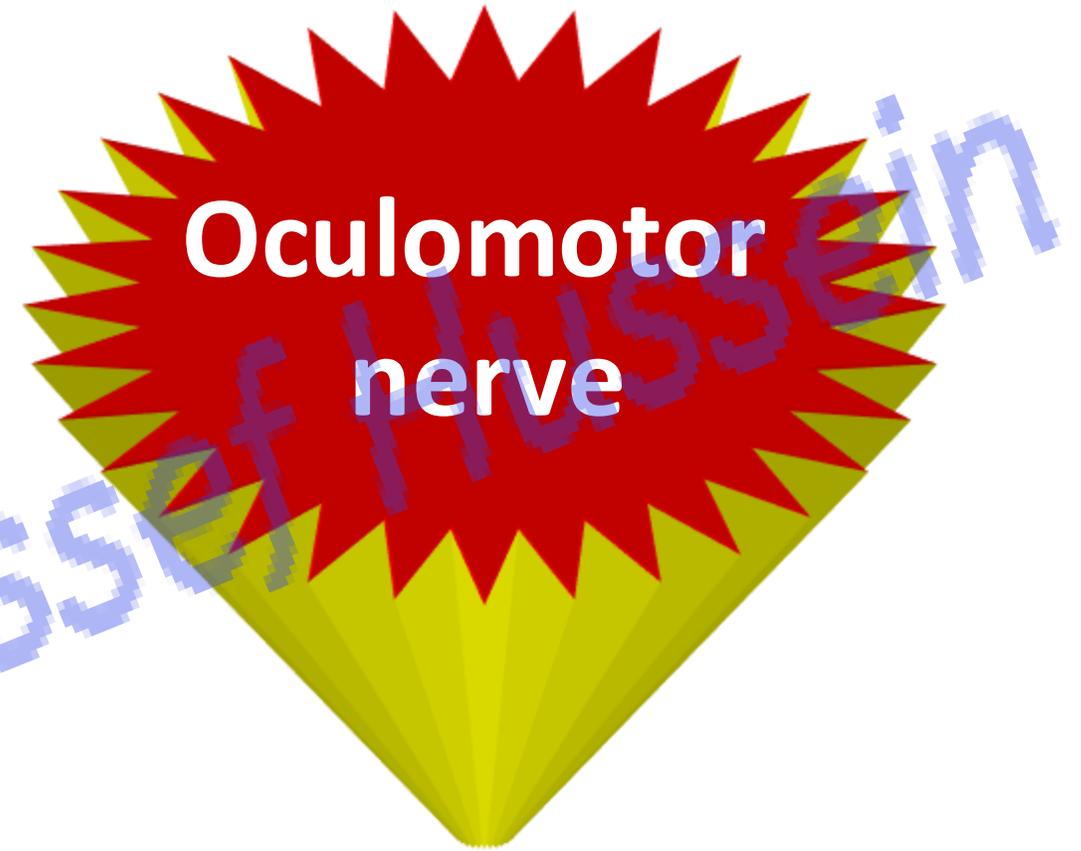
turns the eye downward and laterally

▪ **Nuclei: in midbrain;**

**a- Motor nucleus:** supplies **all extra ocular muscles except** lateral rectus and superior oblique.

**b- Edinger Westphal nucleus:** (**Parasympathetic**) to ciliary ganglia.

- It divides into superior and inferior divisions that enter orbit through **superior orbital fissure inside the tendinous ring.**



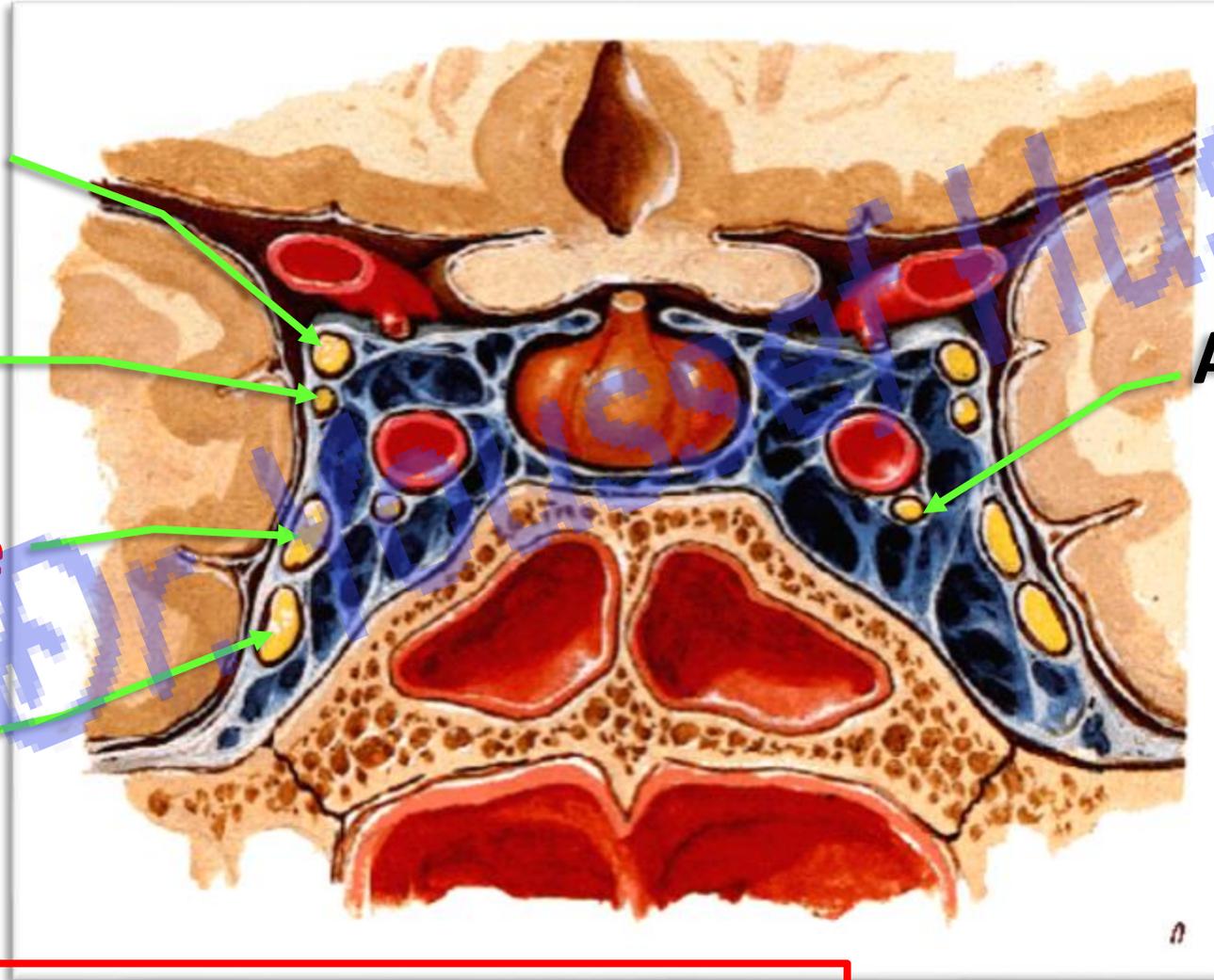
- It passes in the lateral wall of the cavernous sinus

Oculomotor nerve

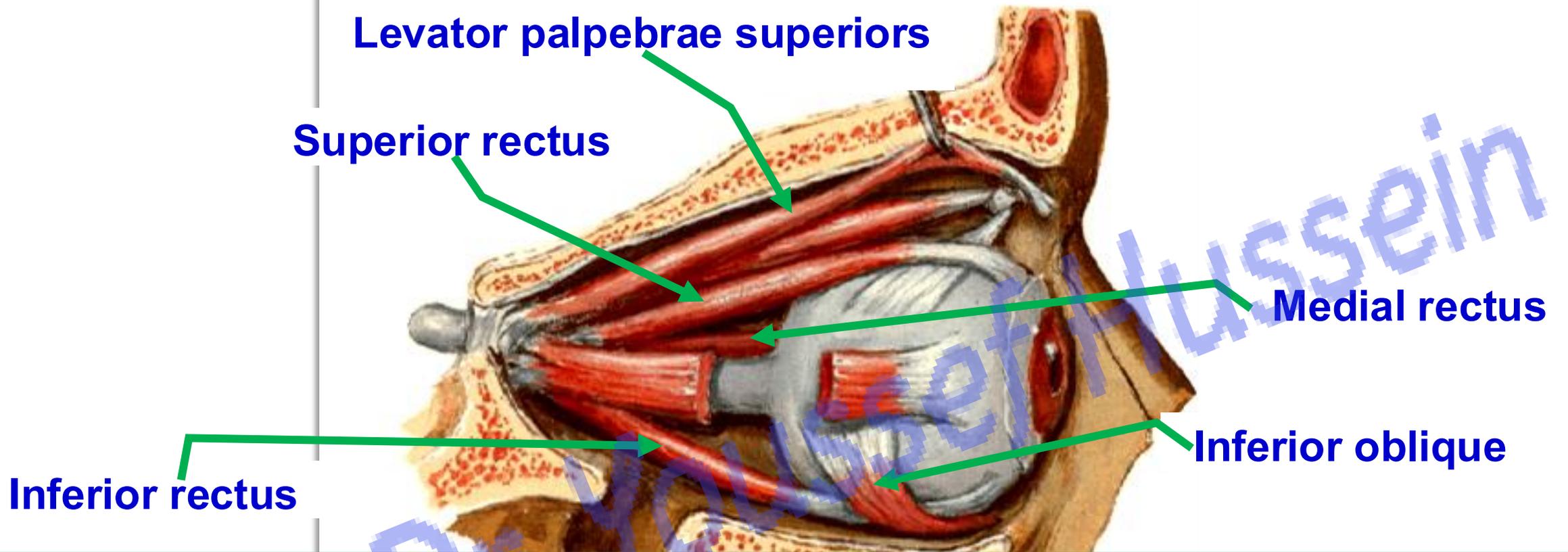
Trochlear nerve

Ophthalmic nerve

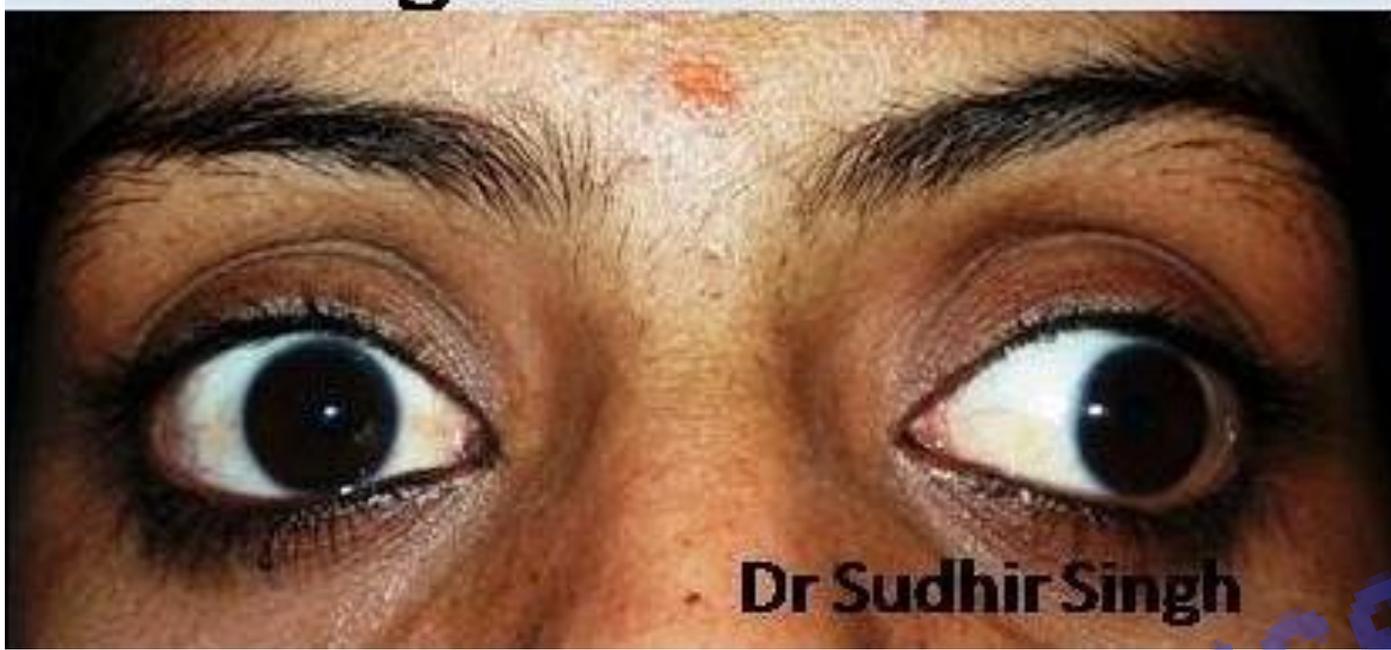
Maxillary nerve



Abducent nerve



- **Superior division supplies:** 1) Superior rectus  
2) Levator palpebrae superioris.
- **Inferior division supplies** 1) Inferior rectus.      2) Inferior oblique  
3) Medial rectus.

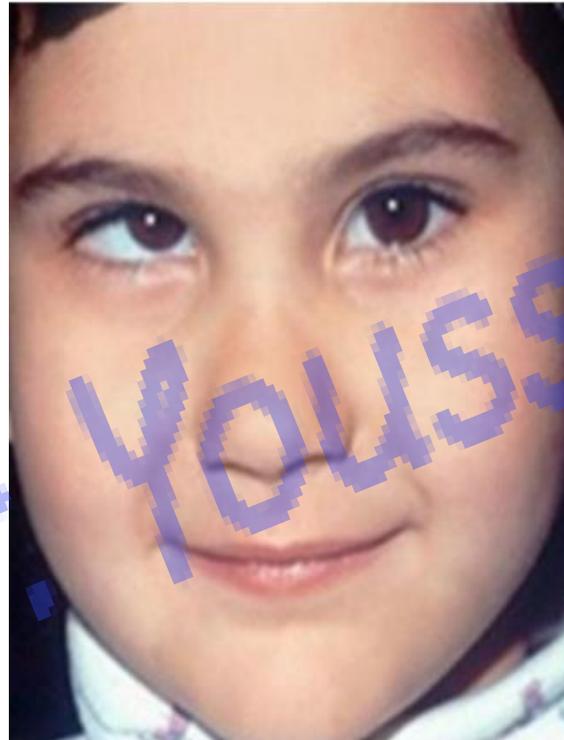


▪ Injury of the nerve

- 1- Paralysis of the levator palpebrae superioris leading to **ptosis**.
- 2- **Squint** by lateral rectus and superior oblique muscles

# Trochlear nerve

- It enters the orbit through **superior orbital fissure outside** tendinous ring to supply **superior oblique muscle**.



- **Injury of the trochlear nerve**
- **Commonly presents as a squint**

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The 4th cranial nerve



- It enters the orbit through the **superior orbital fissure inside the tendinous ring** to supply the **lateral rectus muscle**.



- **Injury of abducent nerve** leading to **medial squint**.

**The 6th cranial nerve**

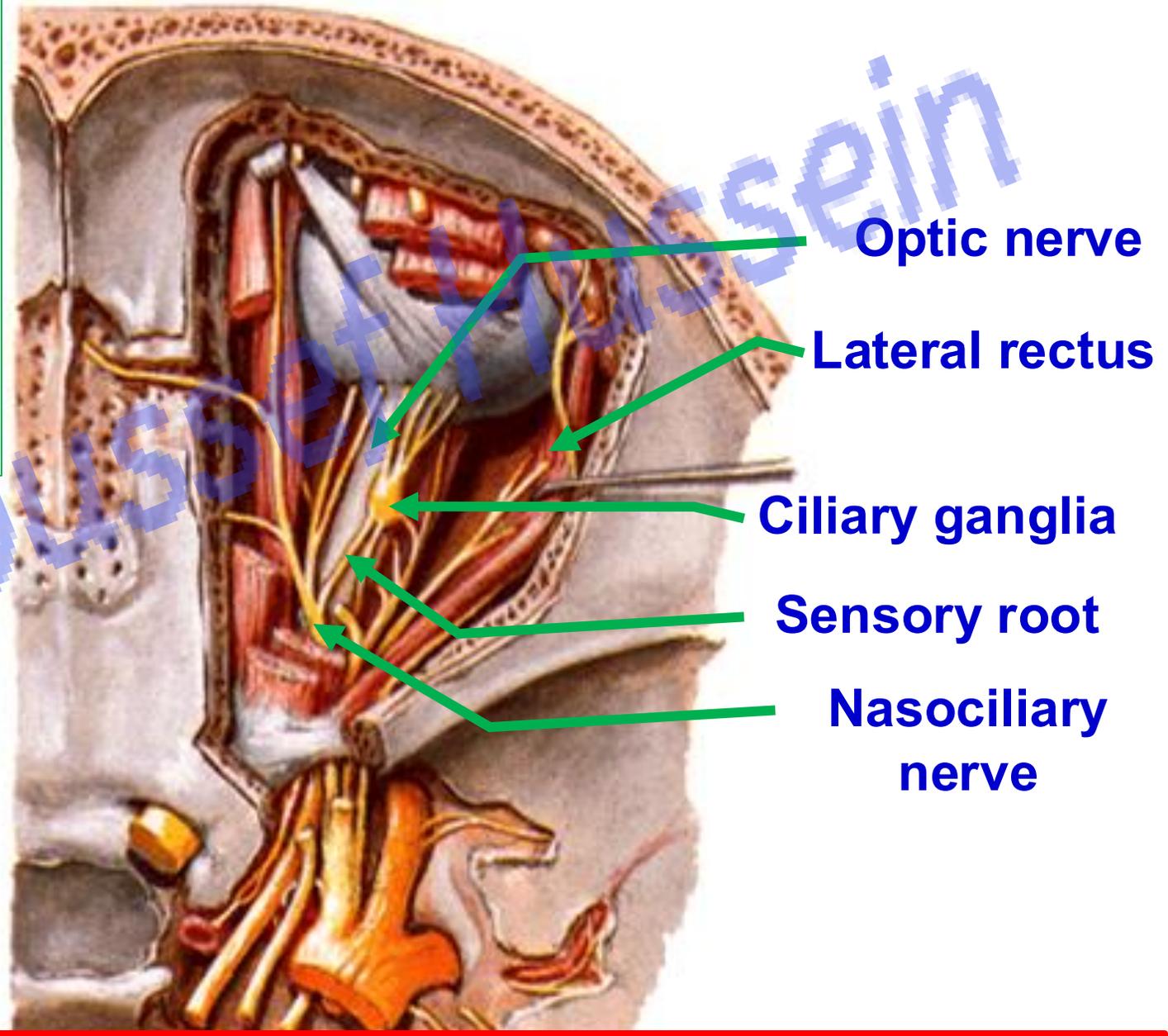
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## • CILIARY GANGLION

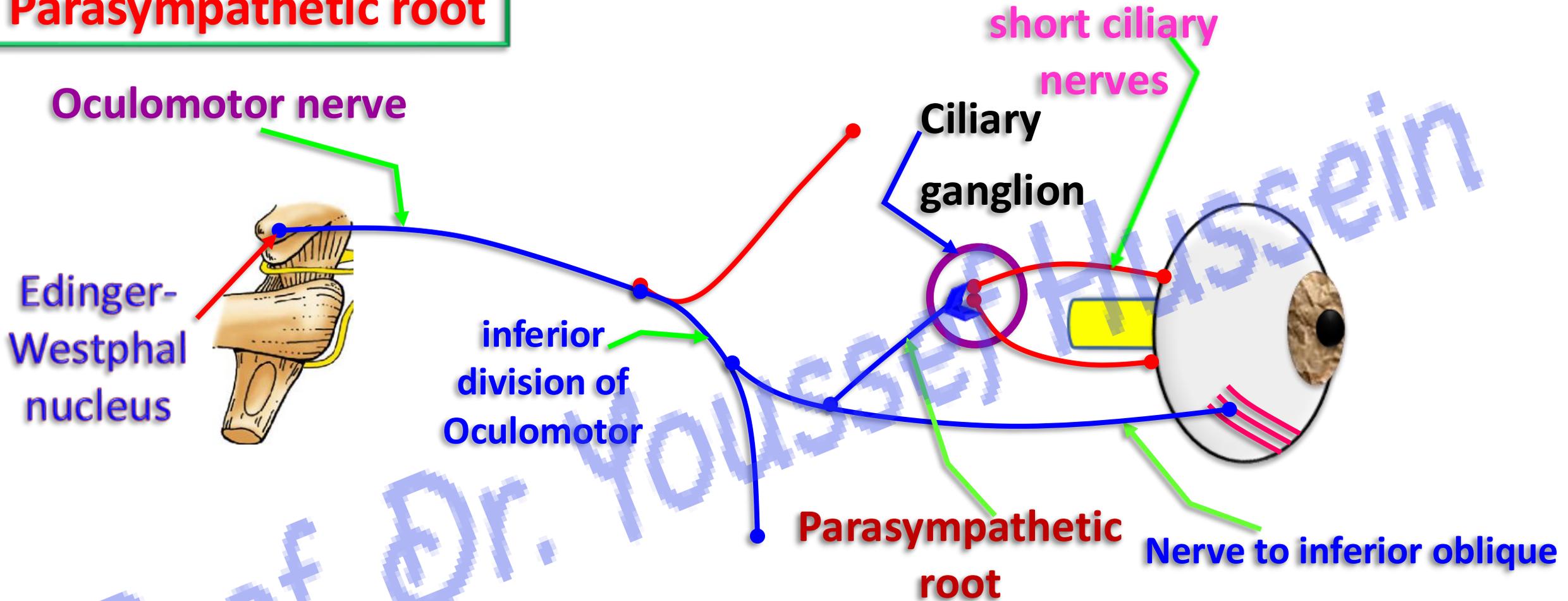
- **Type:** it is a **small parasympathetic ganglion** (size of the pin's head).
- It lies **between** optic nerve and lateral rectus.

### ▪ **Roots:**

- 1- Sensory root:** From nasociliary nerve.
- 2- Sympathetic root:** superior cervical sympathetic ganglia -- sympathetic plexus around ophthalmic artery to **dilator pupillae muscle**



## Parasympathetic root

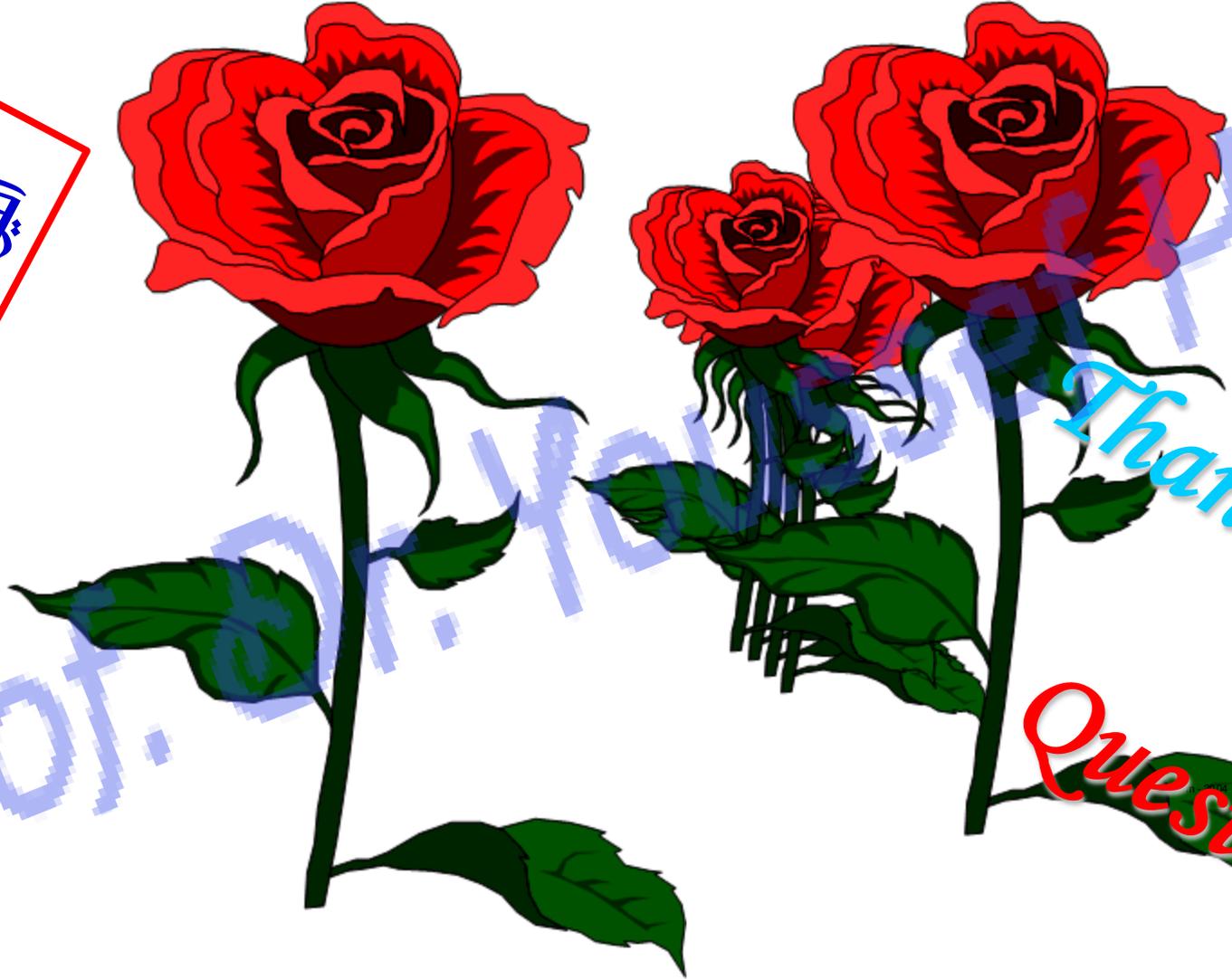


- Postganglionic to the sphincter pupillae (**miosis**) and ciliary muscles (**accommodation**)

[https://www.youtube.com/channel/UCVSNqbibj9UWYaJdd\\_cn0PQ](https://www.youtube.com/channel/UCVSNqbibj9UWYaJdd_cn0PQ)

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Thank You

Questions

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