

UVEA

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- Also called as 'Tunica vasculoza bulbi'
- Uveal tract has three parts: the iris, the ciliary body, the choroid

Anterior uvea – the iris and ciliary body

Posterior uvea – the choroid

IRIS

- Musculus constrictor pupillae (parasympathetic innervation)
- Musculus dilator pupillae (sympathetic innervation)

The iris controls the amount of light entering the eye by varying the size of pupil with these muscles.

CILIARY BODY

- ✓ Lies immediately posterior to iris
- ✓ Ciliary processes (pars plicata, pars plana)
- ✓ Secretes the humor aqueous
- ✓ Contraction of the ciliary muscles causes
 1. relaxation of lens zonules, so that lens shape change in near vision.
 2. Increased drainage of aqueous

CHOROID

Vascular tissue forming the posterior uvea.

Lies between the retina and sclera posteriorly

A reflective layer (tapetum lucidum) lies within the inner capillary layer of choroid.

Its main arterial supply,

- Short posterior ciliary arteries
- Long posterior ciliary arteries
- Anterior ciliary arteries

Choroid has 4 layers

1. Suprachoroidea
2. Large vessels layer
3. Intermediate vessel layer
4. Choriocapillaris

CONGENITAL UVEAL ABNORMALITIES

Pupil Abnormalities

- Dyscoria: abnormally shaped pupil
- Corectopia: eccentrically placed pupil
- Polycoria: more than one pupil
- Aniridia: lack of iris
- Coloboma: sector defect in iris

Persistent Pupillary Membrane

Persistent pupillary membranes represent incomplete regression of the tunica vasculosa lentis

Therapy is not required or possible

Heterochromia

Variations in iris coloration

Both eyes, one eye only or only part of an iris

UVEITIS

Inflammation of uvea

Clinical Signs for uveitis are as follows:

- Aqueous flare
- Keratic precipitates (inflammatory cells infiltration to the corneal endothelium)
- Miosis
- Hypopyon or hyphema
- Corneal edema
- Episcleral vascular injection
- Pain
- Photophobia
- Blepharospasm
- Epiphora
- Lowered IOP

Clinical Signs for uveitis are as follows:

- Increased pigmentation of iris
- Iris color change
- Retinal edema
- Swollen appearance of the iris
- Vitreous opacity

Complications of Uveitis

1. Posterior synechiae: adhesions between the lens and iris
2. Anterior synechiae: adhesions between the iris and cornea, trabecular meshwork
3. Cataract: opacity of the lens
4. Glaucoma: optic neuropathy
5. Retinal detachment
6. Atrophy: the iris and ciliary body atrophy

Causes of Uveitis

1. Infectious associated: algal, bacterial, fungal, viral, protozoal, parasitic
2. Immune-mediated
3. Neoplastic
4. Metabolic
5. Traumatic
6. Toxic
7. Reflex
8. Idiopathic

TREATMENT

1. Etiologic diagnosis
2. Control inflammation
 - corticosteroids
 - NSAID
 - immunosuppressive agents (cyclosporine)
3. Prevent sequelae
 - antiglaucoma drugs
4. Relieve pain

IRIS PROLAPSE

The iris is carried forward into the corneal defect by escaping aqueous. Signs are:

- The protruding iris tissue forms a mound on the cornea
- The pupil is eccentric
- The corneal wound is closed by iris
- The color of the prolapsed iris becomes lighter

TREATMENT

- Medical therapy
- Surgical therapy

HYPHEMA

Etiology may be idiopathic or result from many factors, such as:

- ✓ Traumatic disruption of uveal blood vessels
- ✓ Severe uveitis
- ✓ Tumors
- ✓ Clotting disorders
- ✓ Fragility of vessel walls
- ✓ Systemic diseases

Most hyphemas are small and resorbed spontaneously in a few days.

Surgical removal of clots from the anterior chamber is generally not an effective therapy. The treatment aims are to:

- Identify the cause
- Prevent bleeding
- Control uveitis
- Limit the uveitis sequelae