Anatomy

Uvea (Latin Origin Grape)
It is the vascular coat of eye ball and lies between the sclera and retina.
Uvea is composed of three parts
1-Iris (Rainbow god)
2-Ciliary body
3-Choroid.

IRIS

It is a thin and circular structure which forms a diaphragm like structure in front of the crystalline lens. The diaphragm formed by iris contains a central aperture known as pupil. The location of the pupil is not exactly central, its little nasal to the center. The pupil determines the amount of light entering the eye. The normal size of pupillary aperture is 3-4 mm.

Topography of IRIS: Average diameter of the iris is 10 to 11 mm. It is thickest at collarette, which is located approximately 1.5 mm from the pupillary margin and thinnest at iris root, the part of iris which joins with the ciliary body.

Pupillary Zone: Pupillary zone extends from pupillary margin to collarette. Pupillary zone is relatively flat. Pupillary margin is marked by a dark border, known as pupillary ruff.

Ciliary Zone: Ciliary zone of iris extends from collarette to iris root. There are some depressions or pit arranged in rows present in this area known as crypts. known as Fuchs's crypt.

Posterior surface of Iris: Posterior surface of the iris is much more uniform.Posterior surface of the iris is darker than the anterior surface and shows numerous radial contraction folds.

1. Anterior limiting layer :The color of the iris is largely determined by three main variables: (A) the density and structure of the iris stroma, (B) the pigm

ent epithelium, and (C) the pigment content (granules) within the melanocytes of the iris stroma

2. Iris stroma: Iris stroma forms the main bulk of iris tissue and contains sphincter pupillae, dilator pupillae muscles, vessels and nerves

3. Anterior pigment epithelium: The anterior iris epithelium continues posteriorly as the pigmented epithelium of the ciliary body.

4. Posterior pigment epithelium of iris: Posterior pigment epithelium is the second layer of pigmented epithelium situated posterior to the iris stroma. The cells of the posterior pigment epithelium are more heavily pigmented than anterior pigment epithelium.

Ciliary body

Ciliary body is the middle part of the uveal tract . It is a ring shaped structure which projects posteriorly from the scleral spur, with a meridional width varying from about 6 mm. It is brown in colour due to melanin pigment. Anteriorly it is confluent with the periphery of the iris (iris root)

Parts of ciliary body: Outer side of the triangle (O) is attached with the sclera with suprachoroidal space in between. Anterior side of the triangle (A) forms part of the anterior & posterior chamber. In its middle, the iris is attached. The inner side of the triangle (I) is divided into two parts. The anterior part (2 mm) with finger like processes is known as pars plicata (corona ciliaris) and posterior smooth (4 mm) is known as pars plana (orbicularis ciliaris).

Pars plicata: The pars plicata is the portion of ciliary body which contains the ciliary processes. 70 to 80 in numbers. A ciliary process measures approximately 2 mm in length, 0.5 mm in width, and 1 mm in height.

Pars plana:, pars plana is the flat or smooth part of the ciliary body. It terminates at the ora serrata, which is the transitional zone between ciliary body and choroid.

Ciliary muscles

1 Outer longitudinal or meridional portion (Brücke's muscle): This is the most external part (nearest to the sclera) of the ciliary muscle. This part of the muscle is v shaped, the base of the v is attached to the scleral spur and limbs are inserted into the stroma of choroid.

2 Middle oblique portion (also called reticular or radial): This part of the muscle also originates from the scleral spur and the muscle fibres are attached to the collagenous substances near ciliary processes.

3 Inner circular portion (Müller's muscle): Here the muscle bundles are circular in shape (that's why it is also called annular part of ciliary muscle) and act as a sphincter. It lies close to the periphery of lens and embedded in ciliary stroma near the major arterial circle of iris.

Choroid

is a thin but highly vascular membrane lining the inner surface of sclera. It extends from anteriorly ora serrata to the optic nerve posteriorly. It has a rough outer surface which is attached to sclera at the optic nerve and at the exit of the vortex veins. The smooth inner surface of choroid is attached to the retinal pigmented epithelium (RPE).Choroid becomes continuous with pia and arachnoid at the optic nerve. Choroid is normally 100-220 μm thick ; thickness is highest at macula 500- 1000 μm.

Uveitis

Classification

A.Clinical Classification

B.Etiological Classification

C.Anatomical Classification

D.Pathological Classification

Anterior Uveitis

- Clinical Picture
- Symptoms
  pain,photophobia,lacrimation,blepharospasmdim inusion of vision
- Signs
  lid,conj,cornea,AC,iris,pupil,lens,refraction,vitreo us,tension,macula

Complications

- Synaechia PAS,Posterior
- 2ry glaucoma acute,chronic,steroid induced
- Complicated cataract
- Cyclitic membrane
- endophthalmitis,panophthalmitis
- atrophia bulbi
- papllitis neuroretinitis
- CME
- Long standing uveitis NVG, band shaped keratopathy,

Differential Diagnosis

- **Red eye iritis,conjunctivitis,ulcer,AC Glaucoma**

- **Inflammation endophthalmitis,panophthalmitis,orbital cellulitis,episcleritis,scleritis,**

Investigations

- US
- Laboratory
- X ray

Treatment

- **Treatment of the cause**
- **Local mydriatics,steroids**
- **systemic steroids,immunospressive,**
- **Treatment of complications**

intermediate Uveitis

- Defective vision,Floaters
- Snow banking

Posterior Uveitis

- **Symptoms**
  Mtamorphopsia,photopsia,scotoma,musca volitans,Painless diminusion of vision

- **Signs Exudative,granulomatous**

Congental Anomalies

- **Aniridia**
- **Albinism**
- **Coloboma**
- **persistant pupillary membrane**
- **heterochromia iridum**
- **heterochromia irides**