Conjunctival Hemorrhage

a) No therapy is necessary

b) Usually resolve in 7-12 days
Subconjunctival Hemorrhage
Corneal Abrasion
Abrasions

Many small abrasions can be managed with antibiotic drops or ointment alone, if extensive needs patching.
2) Traumatic mydriasis
3) Iridodialysis

Separation of the iris from ciliary body

a) Small iridodialysis requires no treatment

b) Large dialysis may cause polycorin and monocular diplopia necessitating early surgical repair.
a) Separation of the ciliary body from scleral spur.

b) Can causes aqueous hyposecretion and chronic hypotony and macular edema.

c) Closure may be attempted by using Argon laser, diathermy, cryotherapy or direct suturing.
Hyphema

a) Microscopic

b) Macroscopic

Total hyphema (eight-ball) if no secondary complication prognosis is good.
Traumatic Hyphema

Result from injury to the vessels of the peripheral iris or ant. Ciliary body
A Rebleeding complication

1) Glaucoma
2) Optic atrophy
3) Corneal blood staining
Rebleeding

1) Occurs most frequently between 2 and 5 days after injury.

2) 50% develop elevated IOP
Fig. 9.15
Small hyphaema (blood in anterior chamber) – characteristic fluid level of the blood.

Fig. 9.16
Hyphaema filling more than half the anterior chamber.

Fig. 9.17
Hyphaema filling the entire anterior chamber complicated by secondary glaucoma.
Treatment

1) Protective shield
2) Moderate restriction of physical activity
3) Control IOP
4) Anti fibrinolytic agents reduces the incidence of rebleeding.
a) Tranexamic acid

b) Aminocaproic acid (amicar)
   50mg/ kg  q4h  x5days up to
   30g /day rebleeding from 20-
   33% → 7.1% (112 patients)

C) Oral corticosteroid (↓
rebleeding)
Surgery

Timing is controversial

1) Immediate surgery with earliest detection of corneal blood staining

2) Uncontrollable tension
Surgery

1) Removal of the entire clot is neither necessary nor wise

2) Intraocular diathermy may also be employed

3) Clot removal with vitrectomy can be done
Conjunctival laceration

In general, conjunctival laceration do not need to be sutured.
Foreign bodies

1) Extraocular

2) Intraocular
Foreign body

If AC extension present it should be removed in a sterile operating room.
Iron foreign body

If embedded in the cornea for more than a few hours, an orange rust ring results.
Corneal Foreign Body
Intraocular foreign body
Fig. 9.4
Foreign particle on upper tarsal conjunctiva (everted upper lid).

Fig. 9.5
Foreign particle on cornea.

Fig. 9.6
Intraocular foreign body causing cataract and infection with hypopyon (pus in anterior chamber).
Therapy

1) Removal of foreign body
2) Cycloplegic and antibiotic drop
Abrasions

Many small abrasions can be managed with antibiotic drops or ointment alone, if
Penetrating and perforating trauma
Tests in perforating eye trauma

1) CT scan  2) X ray  3) BUN and creatinine

2) HIV & HBS

3) MRI especially for organic foreign objects this should never be used in a metallic foreign object.
Corneal perforation

1) Put eye shield
2) Avoid administering topical medications
3) IV antibiotics such as tobramycin with clindamicin or vancomycin
4) Tetanus prophylaxis.
Figure 8.2 Two consequences of corneal ulceration: 
(a) a corneal abscess has resulted from severe pseudomonas infection; (b) a small central ulcer is associated with a hypopyon. A level of pus is seen in the anterior chamber.
Soil – contaminated retained intraocular foreign bodies

Risk of bacillus endophthalmitis, this organism can destroy the eye within 24 hours.

IV and or intravitreal therapy should be started, usually clindamycin or vancomycin.
Corneoscleral laceration

1) Restore the integrity of the globe
2) Restore vision
3) If NLP enucleation should not exceed than 14 days to incite sympathetic ophthalmia.
Corneoscleral laceration
Subconjunctival injection and intravitreal antibiotics such as vancomycin 1 mg and amikacin 200 ug may be used
Corneal Laceration
Secondary repair of intraocular trauma

- IOFB removal
- Iris repair
- Cat op & IOL insertion
- Cryotherapy of retinal tear
Eye trauma
(corneoscleral laceration)

Prompt repair help minimize numerous complication
Pain Prolapse of intraocular structures
Proliferation of microbes projected into the eye
Secondary repair
intraocular trauma

Removal of IOFB
Iris repair
Cataract extraction
Mechanical vitrectomy
IOL insertion
The primary goal of initial surgical repair of corneoscleral laceration is to restore the integrity of the globe.
The secondary goal, which may be accomplished at the time of the primary repair is to restore vision through repair of both external and internal damage to the eye.
Post up management

Prevention of infection:
IV antibiotics are usually continued for 3-5 days
Topical antibiotics are generally used for about 7 days.
Retained IOFB require attention the risk of bacillus endophthalmitis.

The organism can destroy the eye within 24 hours.
Intravitreal antibiotics such as Vancomycin 1mg Amikacin 200 µg may be used after contaminated wounds involving the vitreous.
Suppression of inflammation
Massive fibrinous response may respond well to a short course of systemic prednisone
Management of IOFB

Fe
Cu
Wood
Glass
If the prognosis for vision in the injured eye is hopeless and the patient is at the risk for sympathetic ophthalmia, enucleation must be considered.
Corneal and scleral repair

Cornea with 10.0 nylon suture

The scleral wound is closed with 9.0 nylon 8.0 silk suture.
Iv and or intravitreal therapy should be considered
The advantage of delaying enucleation for a few days far outweigh any advantage of primary enucleation. This delay, which should not exceed 14 days, is thought necessary for an injured eye to incite sympathetic ophthalmia.
Primary enucleation should be used only in a devastating injury so severe that restoration of the anatomy is impossible.
The advantage of delaying enucleation for a few days far outweigh any advantage of primary enucleation. This delay, which should not exceed 14 days thought necessary for an injured eye to incite sympathetic ophthalmia.
Very posterior lacerations benefit from effective physiologic tamponade by orbital tissue and are best left alone.
Corneal suture that do not loosen spontaneously are generally left in place for at least 3 months.
ادامه اسلایدها در قسمت دوم