



**Centurion**  
**UNIVERSITY**  
*Shaping Lives...*  
*Empowering Communities...*

# OCULAR DISEASE

## PTERYGIUM



Centurion  
UNIVERSITY

Shaping Lives...  
Empowering Communities...

# *Introduction*

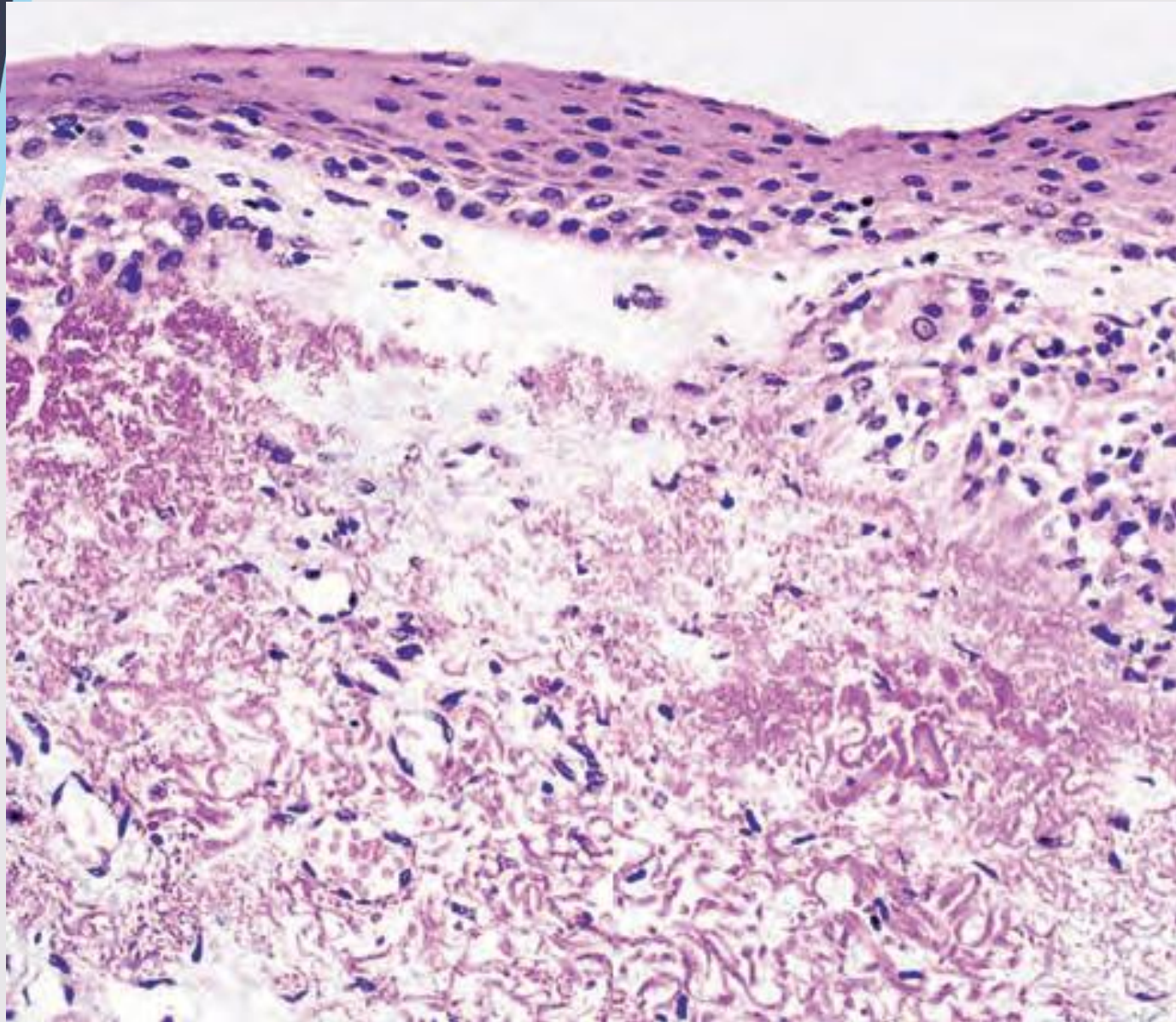
- A pterygium (plural pterygia) is a triangular fibrovascular subepithelial ingrowth of degenerative bulbar conjunctival tissue over the limbus onto the cornea.
- It typically develops in patients who
- have been living in hot climates and, as with pinguecula, may represent a response to ultraviolet exposure and to other factors such as chronic surface dryness.



**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

*Histology shows collagenous degenerative changes in vascularized subepithelial stroma*





**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# Continue...

- Pseudopterygium appears similar clinically but is caused by a band of conjunctiva adhering to an area of compromised cornea at its apex.
- It forms as a response to an acute inflammatory episode such as a chemical burn, corneal ulcer, trauma and cicatrizing conjunctivitis.





**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# ***Clinical features-Symptoms***

- Most small lesions are asymptomatic.
- Irritation and grittiness are caused by a dellen – localized drying – effect at the advancing edge due to interference with the precorneal tear film
- Patients who wear contact lenses may develop symptoms of irritation at an earlier stage due to edge lift.
- Lesions may interfere with vision by obscuring the visual axis or inducing astigmatism.



**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# Continue...

- There may be intermittent inflammation similar to pingueculitis.
- Cosmesis may be a significant problem.
- Extensive lesions, particularly if recurrent, may be associated with subconjunctival fibrosis extending to the fornices that may cause restricted ocular excursion.
- If pseudopterygium is suspected, there may be a history of a causative episode.

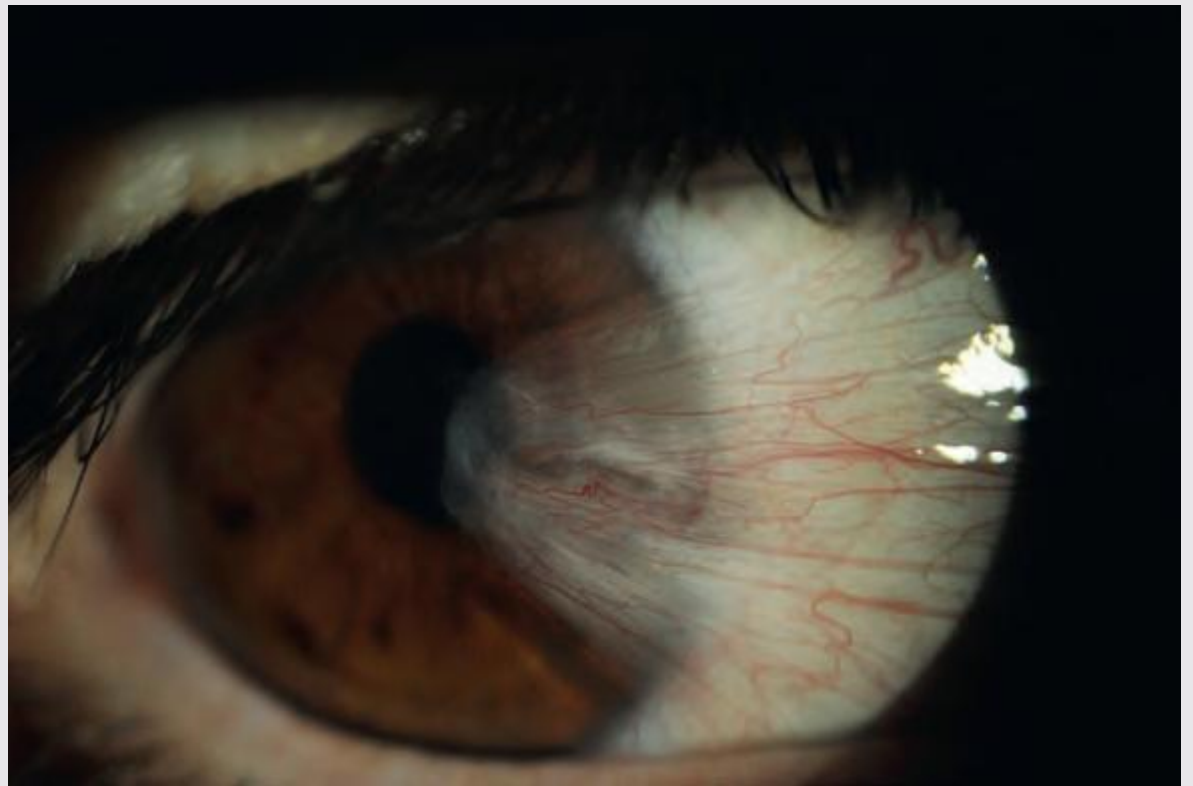


**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# Signs

- A pterygium is made up of three parts: a 'cap' (an avascular halo-like zone at the advancing edge), a head and a body



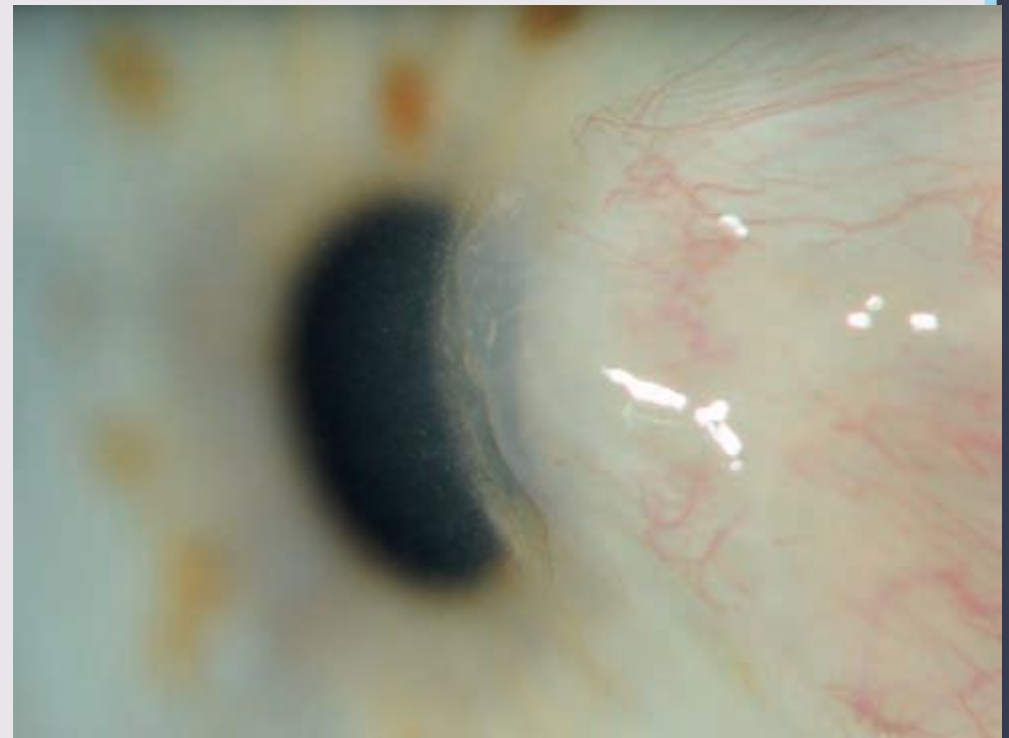


**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# Continue...

- Linear epithelial iron deposition (Stocker line) may be seen in the corneal epithelium anterior to the head of the pterygium





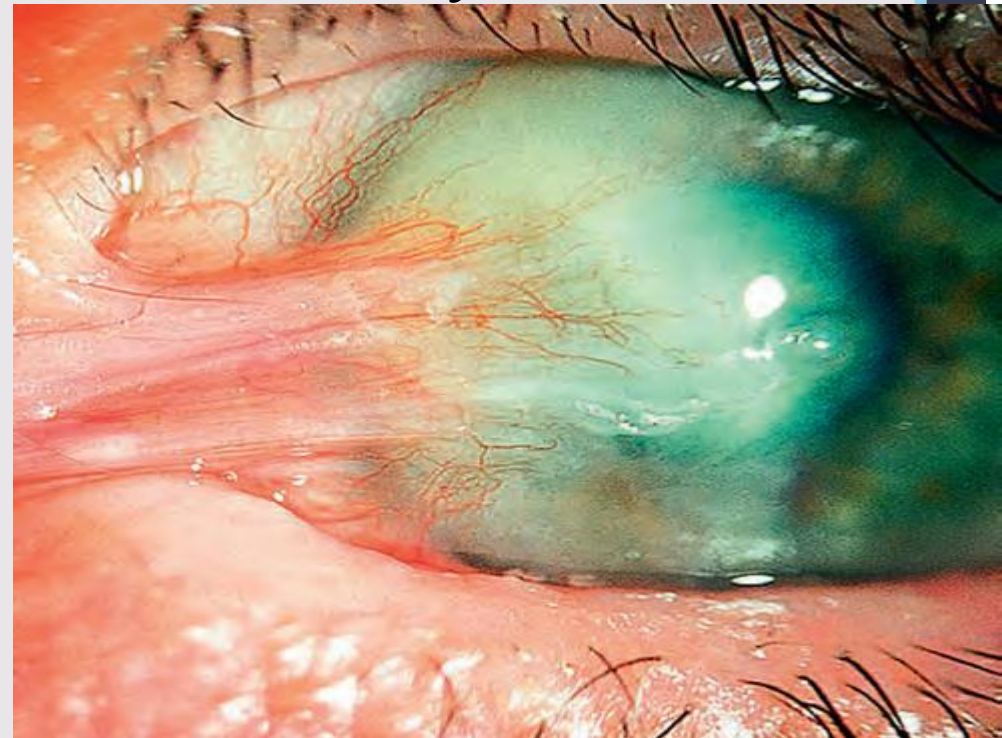


**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# Continue...

- A pseudopterygium is classically distinguished by both location away from the horizontal (though this may also be seen with true pterygia) and firm attachment to the cornea only at its apex (head).





**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# ***Treatment***

- **Medical treatment** of symptomatic patients is as for pinguecula.
- The patient may be advised to wear sunglasses to reduce ultraviolet exposure in order to decrease the growth stimulus.



**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# Surgery.

- Simple excision ('bare sclera' technique) is associated with a high rate of recurrence (around 80%), often with more aggressive behaviour than the original lesion.



**Centurion**  
**UNIVERSITY**

*Shaping Lives...*  
*Empowering Communities...*

# CONCRETIONS



Centurion  
UNIVERSITY

*Shaping Lives...  
Empowering Communities...*

# Continue...

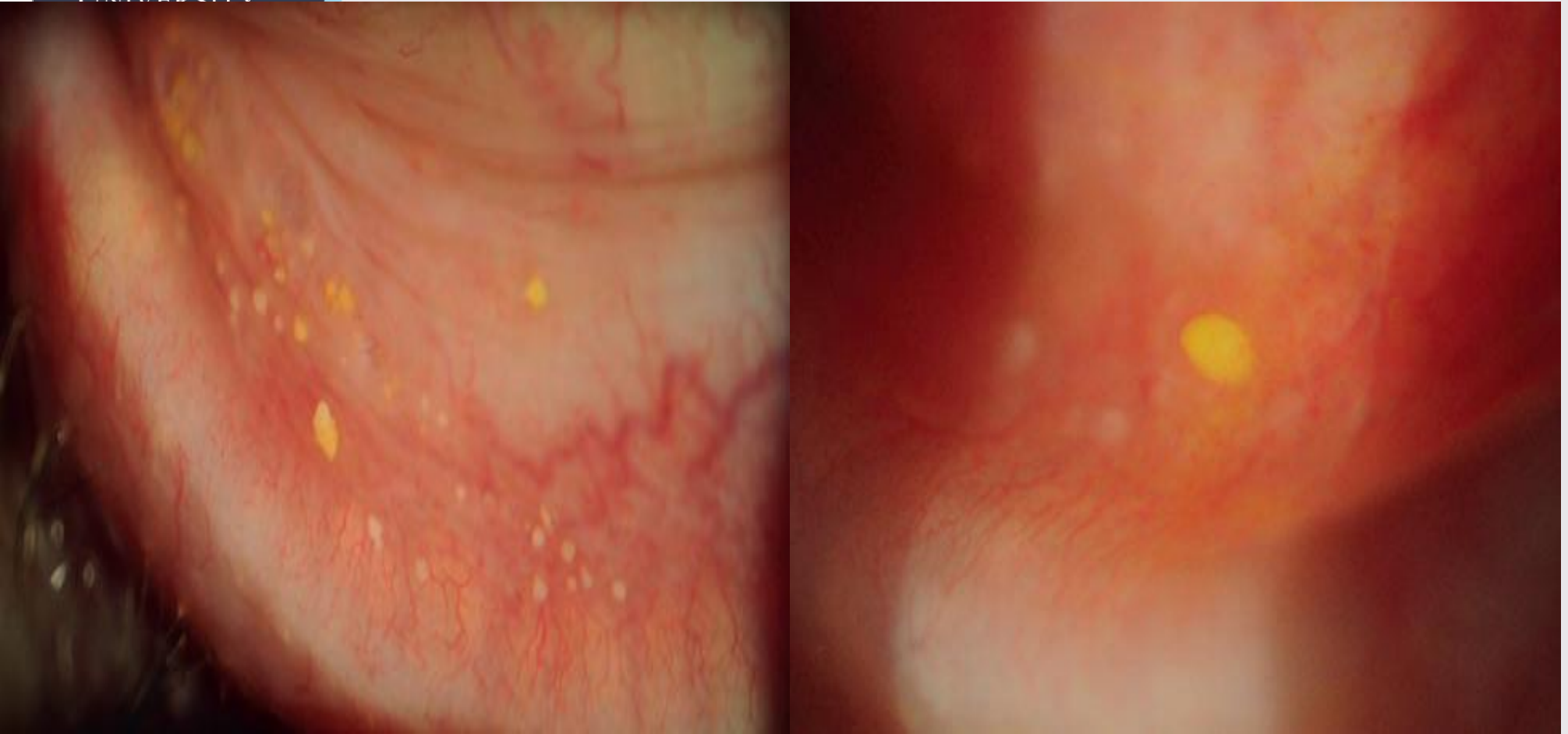
- Concretions are extremely common and are usually associated with ageing, although they can also form in patients with chronic conjunctival inflammation such as trachoma.
- They appear as multiple tiny cysts containing yellowish–white deposits of epithelial debris including keratin, commonly located subepithelially in the inferior tarsal and forniceal conjunctiva





Centurion  
UNIVERSITY

# *Multiple small concretions*



*large concretion eroding through the conjunctival surface*



**Centurion**  
**UNIVERSITY**

*Shaping Lives...  
Empowering Communities...*

# Continue...

- They can become calcified and, particularly if large, may erode the overlying epithelium (Fig. 5.33B) and cause marked irritation.
- Treatment if symptomatic involves removal at the slit lamp with a needle under topical anaesthesia.