Pterygium

Disclaimer

COVID-19 note

The Royal Australian and New Zealand College of Ophthalmologists (RANZCO) and The Royal Australian College of General Practitioners (RACGP) have made recommendations regarding eye examination during the COVID-19 pandemic. See RANZCO – COVID-19: Practical Guidance for General Practitioners Performing Eye Examinations.

Last updated: 18 May 2020

Contents

Disclaimer ............................................................................................................................................. 1
Background – About Pterygium ........................................................................................................ 2
Assessment ........................................................................................................................................ 2
Management ...................................................................................................................................... 3
Referral .............................................................................................................................................. 5
Information ........................................................................................................................................ 5
For patients ........................................................................................................................................ 5
Disclaimer ........................................................................................................................................ 6
Background – About Pterygium

- A triangular wedge of fibrovascular conjunctival tissue that typically starts medially on the nasal conjunctiva and extends laterally onto the cornea.
- Associated with chronic sun exposure.
- Can be confused with pinguecula, a degenerative eye condition. Pinguecula is a yellowish, slightly raised conjunctival lesion and remains confined to the conjunctiva without corneal involvement. There is usually space between the pinguecula and the edge of the cornea.
- A pterygium can arise from a pinguecula.
- Conjunctival neoplastic lesions can be mistaken for pterygium.

Assessment

1. History:
   - Look for most common symptoms i.e., redness and irritation.
   - Ask patient about duration and any increase in size over time.
2. Examination:
   - Look for common features:
     - Often bilateral, extends onto corneal surface nasally, and chronically red.
     - Band of redness and thickening extends onto cornea from conjunctiva as a wedge.
     - A pinguecula is localised and does not extend onto the cornea.

- Assess visual acuity.

**Measuring visual acuity**

1. Ask if the patient has distance glasses with them, and if either eye has had known poor vision i.e., a lazy eye.
2. Test their distance vision in each eye, while wearing glasses, using a 3, 4, or 6 metre chart.
3. Check each eye separately, with distance glasses if worn. If acuity is subnormal, check with a pinhole.
4. If vision improves with a pinhole and no cataract is present, then the patient requires a review of their glasses.
5. Near vision – test while patient is wearing reading glasses.
6. Be aware that ulcers and abrasions can cause reduced vision.
7. If any concerns, arrange optometry referral.

➢ If atypical appearance, consider conjunctival neoplastic lesions.

Atypical appearance
• Not at the 3 or 9 o’clock position
• Not triangular
• Growth at limbus
• Gelatinous and raised
• Corkscrew vessels

Management

1. Advise simple measures which help most symptoms:

➢ Lubricant drops, gels, or ointments help irritation and redness over time.

Lubricant drops, gels, or ointments
• There are many types available, but no evidence that any is superior to another.
• Preservative-free products are preferred, as preservatives can irritate an already dry eye. Benzalkonium chloride is the most frequently used preservative and the worst irritant.
• Ointment preparations are particularly useful at night.
• Gels provide longer relief than drops, and blur vision less than ointments.

Lubricants in common brands

<table>
<thead>
<tr>
<th>Lubricant</th>
<th>Brands (preservative-free)</th>
<th>Brands (with preservative)</th>
</tr>
</thead>
</table>
| Carmellose sodium | ● Optifresh Plus (single-dose units)*  
● Optifresh Tears (single-dose units)*  
● Cellufresh (single-dose units)*  
● TheraTears (single-dose units)  
● Celluvisc (single-dose units)*  
● Refresh Plus (single-dose units) | ● Refresh Tears Plus (multi-dose)*  
● Refresh Liquigel (multi-dose)*  
● Refresh Contacts (multi-dose) |
| Carbomer-974 | Polygel Lubricating Eye Gel (single-dose units)* |  |
| Carbomer-980 |  | ● Optifresh Eye Gel (multi-dose)*  
● PAA (multi-dose)* |
| Carmellose sodium with glycerol | Optive Sensitive (single-dose units) | Optive Eye Drops (multi-dose)* |
| Dextran-70 with hypromellose | Bion Tears (single-dose units)* | ● Poly-Tears (multi-use)*  
● Tears Naturale (multi-use)* |
| Paraffin | ● Refresh Night Time Eye Ointment (multi-use)* |  |
| Polyvinyl alcohol | Poly Visc Lubricating Eye Ointment (multi-use)*  
|                  | Ircal (multi-use)* |
| Polyvinyl alcohol with povidone | Refresh Eye Drops (multi-use) |
| Polyethylene glycol-400 with propylene glycol | Systane Ultra Eye Gel (multi-use)  
|                  | Systane Gel Drops (multi-use)  
|                  | Systane Ultra Eye Drops (multi-use) |
| Polysorbate 80-carmellose sodium-glycerol | Optive Advanced Preservative-Free Lubricant Eye Drops |
| Hypromellose | Methopt (multi-use)*  
|                  | Genteal Lubricating Eye Drops (multi-use)* |
| Hypromellose with carbomer-980 | HPMC PAA (multi-dose)*  
|                  | Genteal Gel (multi-use)* |
| Sodium hyaluronate-carmellose sodium-glycerol | Optive Fusion Preservative-Free Lubricant Eye Drops (single-dose units)  
| Sodium hyaluronate | Hylo-Forte (multi-use)*  
|                  | Hylo-Fresh (multi-use)* |
| Soy lecithin with tocopherols (vitamin E) and vitamin A | Tears Again (spray)* |

*Indicates PBS listed – restrictions may apply

- Occasional use of **decongestant eye drops** gives temporary relief of redness or eye irritation. Frequent use of drops can worsen redness.

**Decongestant eye drops**

For example:
- Albalon
- Albalon Relief
- Albalon-A
- Murine Clear Eyes
- Murine Sore Eyes
- Naphcon-A
- Naphcon Forte
- Optazine
- Prefrin
- Prefrin-Z
- Visine Allergy
➢ Wearing sunglasses (wrap-around style UV400) and hats decreases UV exposure – this may also decrease rate of progression and risk of recurrence post-surgery.

➢ Avoid opening eyes underwater in swimming pools or ocean especially when inflamed, unless wearing protective goggles.

2. If symptoms flare-up (often for 3 to 14 days) with redness, irritation, and watering, use conservative measures with lubricants.

3. Consider [optometry referral](#) to exclude dysplasia and update glasses prescription.

4. If atypical appearance and suspected ocular surface squamous neoplasia, arrange prompt [urgent or routine ophthalmology referral](#).

5. Arrange [urgent or routine ophthalmology referral](#):
   - if extension onto cornea of ≥ 3.5 mm from limbus (border of cornea and sclera) to apex of pterygium, and increased risk of astigmatism.
   - if visual axis is threatened.

   Do not refer for excision for redness or irritation alone.

6. Note a pinguecula can be safely managed by a general practitioner or optometrist, as surgical excision is rarely required except for significant symptoms.

---

### Referral

- If atypical appearance and suspected ocular surface squamous neoplasia, arrange prompt [urgent or routine ophthalmology referral](#).

- Arrange [urgent or routine ophthalmology referral](#):
  - if extension onto cornea of ≥ 3.5 mm from limbus (border of cornea and sclera) to apex of pterygium, and increased risk of astigmatism.
  - if visual axis is threatened.

- Consider [optometry referral](#):
  - to exclude dysplasia.
  - to update glasses prescription.
  - if any concerns measuring visual acuity.

---

### Information

#### For patients

- Better Health Channel – [Pterygium](#)
- RANZCO – [Surgical Treatment of a Pterygium](#)
Disclaimer

Last updated: June 2020