THE ROYAL VICTORIA EYE AND EAR HOSPITAL DUBLIN

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Clinical Guideline for the treatment of

RECURRENT CORNEAL EROSION SYNDROME (RCES)

DESCRIPTION

Recurrent corneal erosion syndrome (RCES) is an epithelial disorder characterised by loose/irregular epithelium or a frank epithelial defect, often on a background of past epithelial trauma or corneal dystrophy.

RED FLAGS

- Exclude infectious keratitis.
- Evert upper lids – rule out subtarsal foreign body.
- Examine both eyes to assess for epithelial basement membrane dystrophy (or other corneal dystrophy).

HOW TO ASSESS

HISTORY

- Symptoms: recurrent attacks of acute ocular pain, photophobia, foreign body sensation and epiphora. Typically occurs upon waking.
- Aetiology: Abnormal corneal epithelial healing following damage to the corneal epithelium and epithelial basement membrane.
- Risk factors include:
  - Previous traumatic corneal abrasion (fingernail, paper, tree branch, etc.)
  - Any ocular intervention where there is a potential for a corneal epithelial defect, e.g. kerato-refractive surgery
  - Corneal dystrophy (see below)

EXAMINATION

- Conjunctival injection
- Localised area of irregular/loose corneal epithelium or a corneal defect staining with fluorescein.
- Epithelial changes may resolve within hours of onset of symptoms so an abnormality may be difficult to detect at time of examination.
- Fluorescein dye may show an area of irregular staining in the area of the erosion.

- Corneal dystrophy – anterior/epithelial basement membrane dystrophy
- Examine both corneas for epithelial microcysts, map, dot and fingerprint shaped opacities
- Document size of epithelial involvement (before +/- after debridement, if performed

TREATMENT

If no epithelial defect is present or has healed, commence lubrication:

- Regularly during the day (4-6 times a day) with non-preserved artificial tears
- Use a paraffin-based ointment before bed (e.g. Hylonight® or Muro) for 3-6 months to prevent recurrences.
- Antibiotic ointment or drops (chloramphenicol) QID until epithelial healing is complete.
- If epithelium is loose, perform epithelial debridement with a sterile cotton-tipped applicator, hypodermic needle or blade under topical anaesthesia. This may enlarge the epithelial defect significantly if the surrounding epithelium is abnormal.
- Insert a bandage contact lens (BCL) if the epithelial defect is large. Antibiotic drops (as above) are essential while contact lens is in situ. Discuss and document infection risk associated with extended contact lens wear.
- For analgesia, consider:
    - Cool compresses
    - Oral analgesia, (e.g. regular paracetamol)
    - Cycloplegia, (e.g. cyclopentolate 1% eye drops, stat dose or TDS ongoing)
    - Never prescribe topical anaesthetic drops for home use.
- If erosions recur despite the above measures, refer to the Corneal Team.

FOLLOW-UP

- May not be required in mild cases with a small epithelial defect
- Patients with large erosions or a BCL in situ must be reviewed in 5-7 days

DISCHARGE INSTRUCTIONS

- Warn patients about the likelihood of recurrence and the need for regular lubrication (particularly at night-time) to minimise recurrences.
- Advise patient to return if pain worsens or vision deteriorates.
- All patients with a BCL must be told of the importance of follow-up, especially if increased pain, due to the risk of infectious keratitis.