CASE RECORD : Bacterial Keratitis

You are presenting this case on behalf of a colleague. Chatham House rules apply but the patient and practitioners are not present. You must facilitate a discussion about the case.

Try and encourage the group to explore:

1. The risk factors of MK
    a. 1. Contact lenses wear, particularly extended-wear contact lenses.
    2. Contaminated ocular medications, contact lens solutions, or contact lens cases.
    3. Decreased immune defences.
    4. Aqueous tear deficiencies
    5. Corneal disease.
    6. Structural alteration or malposition of the eyelids
    7. Chronic dacryocystitis
    8. Use of topical corticosteroids
2. When, if ever, can it be assumed a lesion is sterile
3. Varying presentations of MK
4. Is it ever legitimate to treat within community practice
5. What considerations may influence management strategies
    a. Size, location, duration, AC reaction, Immunocompetence, Hospital vs Community acquired.
6. What treatment modalities could be considered
    a. Flouoroquinolones, Loading doses to reach therapeutics titres, q1h for 24/24
7. What are the 2 (or 3) primary reasons management options fail
    a. Misdiagnosis, Under Treatment, (less than meticulous follow-up)
        i. In this case FOLLOW-UP was not METICULOUS enough
8. The importance of increasing our armoury of confidence, skills and therapeutic agents
9. The need to take a comprehensive medical case history
    a. Could link to 1, 3 & 4 Above especially in the elderly,
10. The need to take a comprehensive CL case history
11. The importance of patient education and re-enforcement of safety strategies.
    a. Example Px was very intelligent, meticulous and compliant but once without thinking used someone else's case

The goal is to consider our evolving roles and responsibilities. Clinical responsibilities to patients and practice structures and procedures to remain safe.

GOC Competency Units and Learning Objectives

Competency 1: Communication

- 1.1.1 Obtains relevant history and information relating to general health, medication, family history, work, lifestyle and personal requirements.
- 1.1.2 Elicits the detail and relevance of any significant symptoms.
- 1.2.4 Explains to the patient the implications of their pathology or physiological eye condition.

Competency 2: Professional Conduct

- 2.2.2 Is able to work within a multi-disciplinary team
- 2.2.3 Is able to work within the law and within the codes and guidelines set by the regulator and the profession.
- 2.2.5. Interprets and responds to existing records.
- 2.2.6. Makes an appropriate judgement regarding referral and understands referral pathways.

Competency 3: Ocular Examination

- 3.1.2 Uses a slit lamp to examine the external eye and related structures

Competency 6: Ocular Disease

- 6.1.1. Understands the risk factors for common ocular conditions.
- 6.1.2. Interprets and investigates the presenting symptoms of the patient.
- 6.1.3. Develops a management plan for the investigation of the patient.
- 6.1.5. Recognises common ocular abnormalities and refers when appropriate.
- 6.1.7. Manages patients presenting with red eye/s.
- 6.1.11. Understands the treatment of a range of common ocular conditions.

Record Card
13/8/12

- 24 year old CL wearer
    - Daily Wear SiH, Stringent with cleaning
- General Health Excellent
    - Oral Contraceptive, No Allergies, No Hayfever, Non-Smoker, Social Drinker
- Back from Oxford University for Summer Break

Symptoms and history

Unscheduled appointment. Full Clinical Scheme no charge

Left CL left in eye overnight 2/7/ago (Saturday). Painful red eye Sunday – does not feel better today (Monday)

Not significantly photophobia

Clinical examination

VA 6/6 R&L

- Slit lamp – No anterior photos – recorded as

1mm diameter marginal lesion inferio/temporal, 1mm from limbus, Positive Nafl staining, AC clear

Diagnosis and Management

Marginal Sterile Ulcer

Differential?

Clinical Management Plan

General Advice

Chloramphenicol qid as prophylaxis

Review in 2 days by IP optometrist

Advised to return earlier if symptoms worsen

15/8/12 (8.00am)

Symptoms and history

Scheduled Review

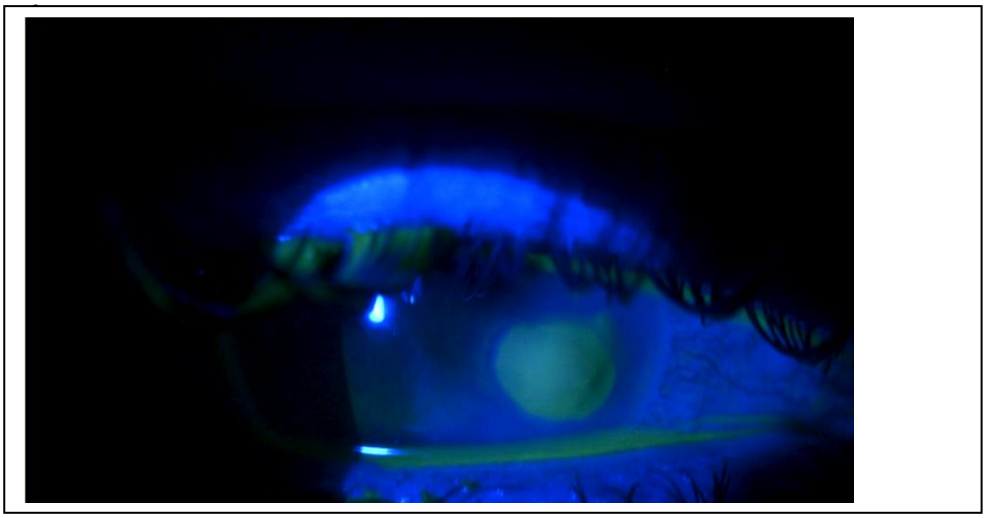
Seemed to improve but much worse last 24/24. Vision blurred. Extreme ocular discomfort. Pain level 1-10 (8)

Extremely photophobic – presented with sunglasses on.

Clinical examination

VA not measured

- Slit lamp – 5mm Lesion, Full epithelial defect with stromal excavation. AC clear



Clinical Management Plan

Referred directly to HES casualty

Advice

No treatment as may affect culture. Take lenses and case

Will require hospital admission

1/9/12. Outcome Audit, Mistakes and improved CMP

Hospitalised for 5 days. Round the clock treatment with fortified anti-biotics

Currently still under HES review – Ofloxacin, Gentamicin, Phenylephrine, Predforte

Mistakes:

1. Misdiagnosed
2. Under Prescribed
3. Follow up too long

Standard Treatment - if caught by IP Optometrists 2/7 earlier.

Ofloxacin (should it be ciprofloxacin?) – loading dose every 15minutes for 2 hours, followed by q1h with Nocturnal ointment.

Taper as lesion resolves. May appear to become worse before improvement. Maintain treatment beyond observed resolution.

Meticulous Follow Up

BNF 65 March 2013

- Other antibacterials with a broad spectrum of activity include the quinolones, **ciprofloxacin**, **levofloxacin**, **moxifloxacin**, and **ofloxacin**; the aminoglycosides, **gentamicin** and **tobramycin** are also active against a wide variety of bacteria. Gentamicin, tobramycin, quinolones (except moxifloxacin), and **polymyxin B** are effective for infections caused by *Pseudomonas aeruginosa*.
- **Ciprofloxacin** eye drops are licensed for *corneal ulcers*; intensive application (especially in the first 2 days) is required throughout the day and night.

22/9/12

Oasys very successful for years, Source traced to old case used as emergency. Trial with TruEye