CASE RECORD : Bacterial Keratitis treated within primary care

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. Is Chloramphenicol reasonable for nocturnal cover
    a. Could there be a better alternative?
        i. Ciprofloxacin comes as ointment and is licenced for mono-therapy of MK
8. What are the 2 (or 3) primary reasons management options fail
    a. Misdiagnosis, Under Treatment, (less than meticulous follow-up)
    b. Need to maintain treatment post clinical resolution.
9. The importance of increasing our armoury of confidence, skills and therapeutic agents
10. Understanding
11. The need to take a comprehensive medical case history
    a. Could link to 1, 3 & 4 Above especially in the elderly,
12. The need to take a comprehensive CL case history
13. The importance of patient education and re-enforcement of safety strategies.
    a. Example Px was less compliant with intense antibiotic treatment regime initially

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
- 2.2.5. 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.
- 6.1.4. Identifies external pathology and offers appropriate advice to patients not requiring referral.
- 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
4/7/13

- Flexible Wear presbyopic CL wearer – sleeps in lenses 4/7
- Full professional service
- 55 year old female
- General Health Good
    - No Medications, No Allergies, No Hayfever, Non-Smoker, Social Drinker

POH: Has had precious acute episode. Trauma with macroerosion on CL removal 2012. Resolved within 24/24 with chloramphenicol prohylaxis qid

Symptoms and history

9.30am

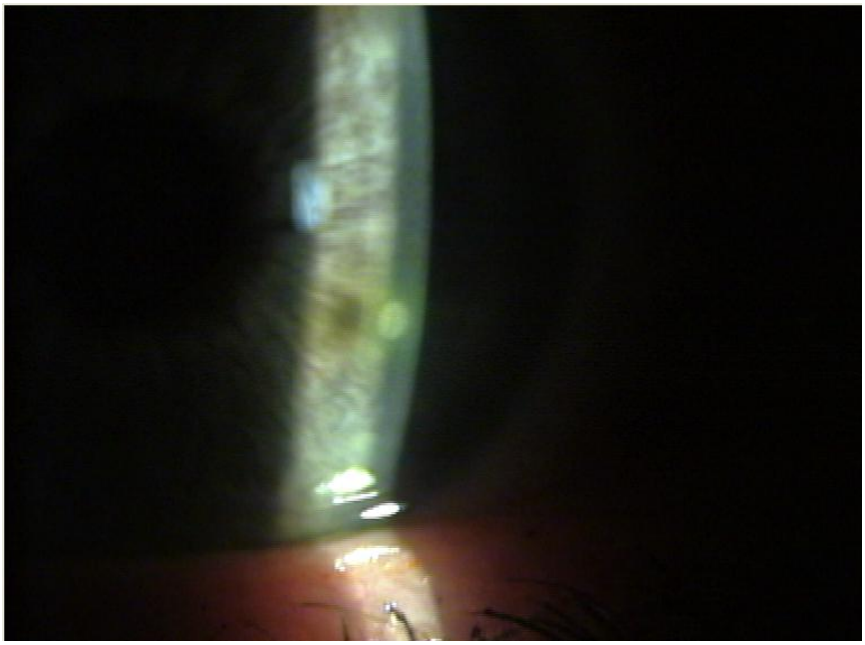
Unscheduled appointment. Full Clinical Scheme no charge

Left eye becoming uncomfortable yesterday. Lens taken out and presented ASAP. VA good. Not particularly light sensitive or photophobic. VA seems unaffected.

Clinical examination

VA 6/6 R&L

- Slit lamp – 1mm diameter marginal lesion inferio/temporal, mid peripheral, Positive Nafl staining, AC clear



Differential Diagnosis and Management

Marginal Sterile Ulcer? MK?

Clinical Management Plan

Discussion with IP Optom. Treat as MK? Treat prophylactically with Chloramphenicol? Monitor?

Advice

Leave lens out. Review in 4h. No prophylaxis given

4/7/13 (1.00pm)

Review of lesion from this morning

Interpreted as slightly larger with possible less distinct edges

Differential: Microbial Keratitis

Clinical Management Plan:

Commence intense Anti-microbial treatment.

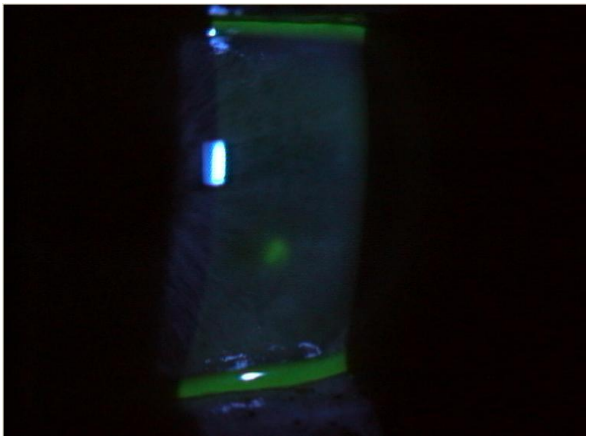
Ofloxacin Every 15 minutes for 2 hours

Followed by q1h while awake

Chloramphenicol ointment nocte

Review tomorrow morning

5/7/13



9.30am

Symptoms similar. Not worse

Slit lamp. Still active appearance; fluffy edges.

No increase in size.

Px may not have been as compliant with hourly routine.

Clinical Management Plan:

Increase dosage of ofloxacin to every ½ hour for this day with Chloramphenicol nocte.

Advise there will be toxic effects on cornea affecting ocular comfort but will resolve

Review in 24/24 (Saturday)

6/7/13

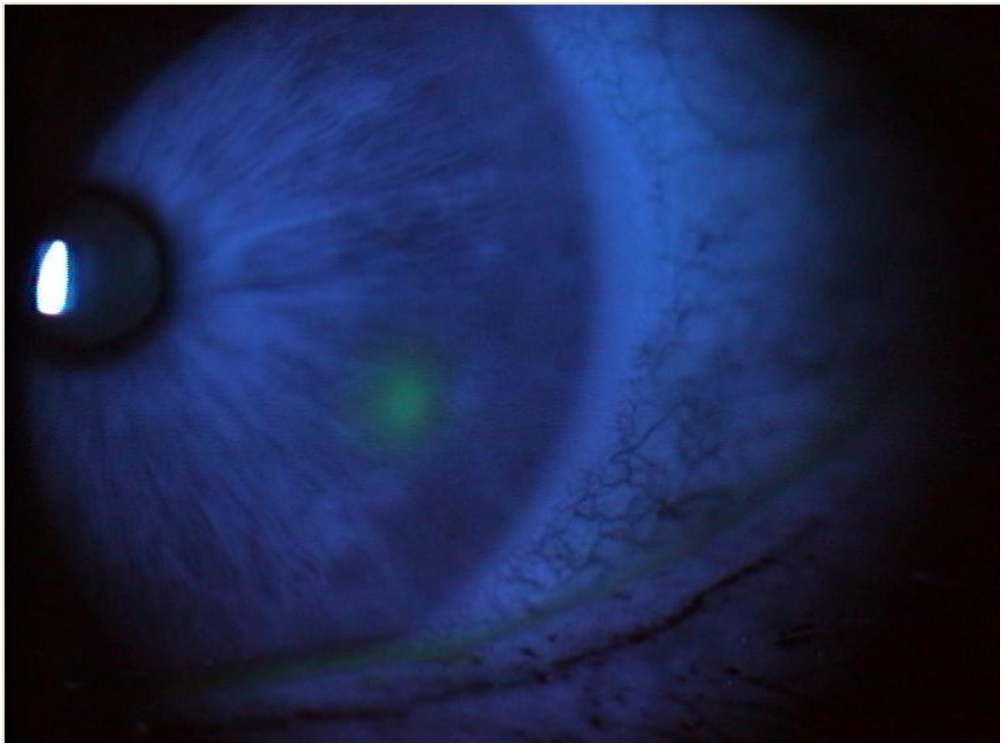
11.00am

Comfort seems better, Not photophobic. Felt it should be better by now – last episode had resolved within this time frame. Explained last episode was corneal abrasion present episode represents infection.

Slit Lamp:

No visible improvement. Positive Nafl staining with stromal involvement.

Continue with management but reduce ofloxacin to q1h. Mobile number given for Sunday. Booked in for Monday 8/7/13 for review.



No visible improvement. Positive Nafl staining with stromal involvement.

Continue with management:

q1h diurnal

Chlorampenicol ointment nocte

Mobile number given for Sunday. Booked in for Monday 8/7/13 for review.

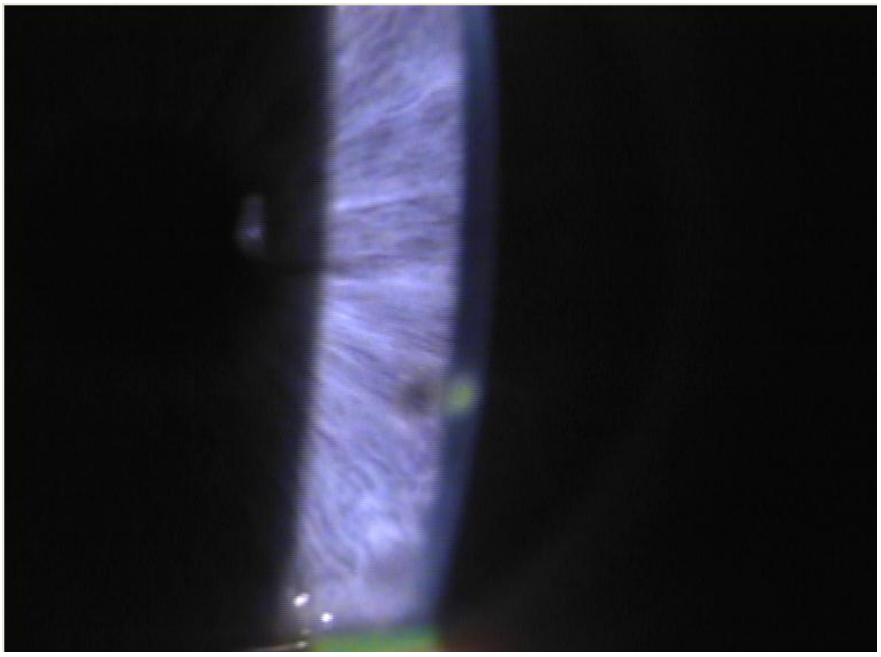
8/7/13

11.00am

No issues throughout weekend. Symptoms improving. Slight irritation only. Compliant with treatment. Understands risks.

Slit Lamp

Still signs of activity but shrinking. Positive epithelial staining. Size 1mm



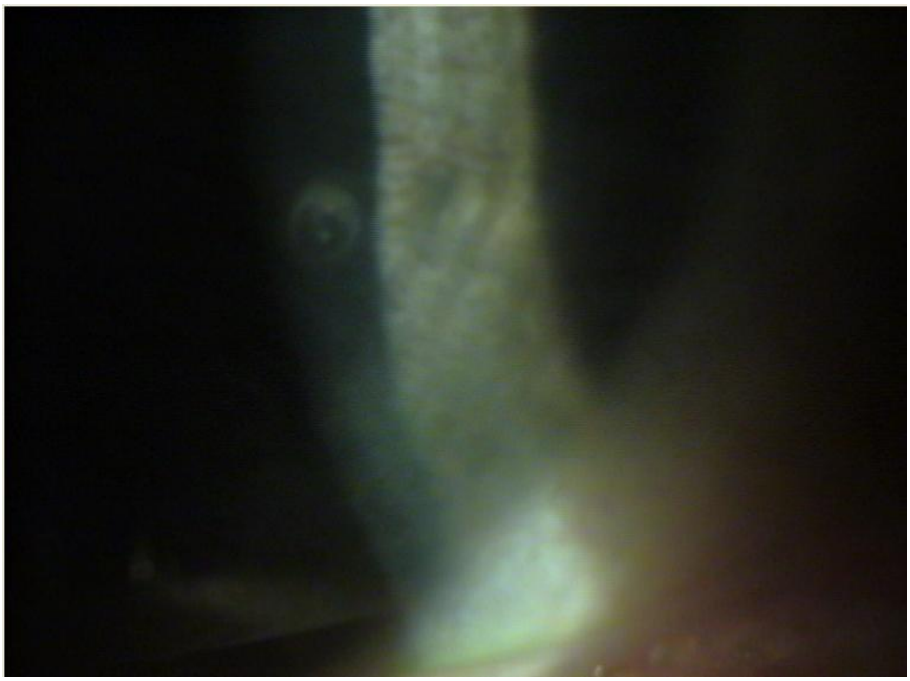
CMP: Reduce Ofloxacin to q2h with nocturnal ointment. Review in 2/7.

10/7/13

1.30pm

Symptoms much better. Eye still slightly gritty but very comfortable

Slit Lamp. Corneal Scar. No staining.



Advice: Continue Ofloxacin qid with nocturnal Chloramphenicol for 4/7 until CL refit Monday 15/7/13

15/7/13

Non-sight threatening corneal scar. No staining.

Discuss risks and benefits of lens modalities. Daily wear recommended.

Discharged from IP care.

Trial with Acuvue TruEye commenced.