The Eye Health Centre

DROPS, PILLS, BLADES

COMPREHENSIVE MANAGEMENT OF COMMON ANTERIOR EYE CONDITIONS

Dr Andrew APEL, Dr Aaron CHIDGEY, Mr Jason HOLLAND

Advanced Glaucoma Surgery | Aviation Vision Care | Cataract Surgery | Corneal Transplants | Dry Eye Clinic | Keratoconus Care Clinic | Laser & Refractive Surgery | Pterygium | Vitreo Retinal Surgery

1

The Eye Health Centre

AGENDA

To understand the topical, oral and surgical management of common anterior eye diseases :

1) Condition One - Very common 20%
2) Condition Two - Uncommon 1%
3) Condition Three – Uncommon 1%
4) Condition Four – Rare 0.5%

2

3

The Eye Health Centre

Interactive session time

In group of 5-8 people, please work through the following questions.

4

The Eye Health Centre

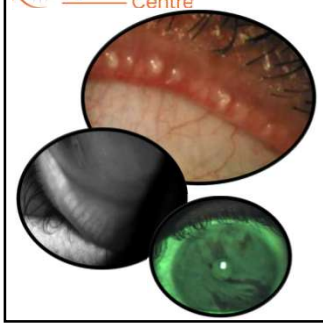
TIME FOR GROUP DISCUSSION

1) What symptoms might you expect with this condition?
2) Name some potential risk factors?
3) What battery of tests might you perform to confirm your diagnosis?
4) What Potential complications can arise if this condition is left untreated?

5

The Eye Health Centre

DIAGNOSIS CONDITION ONE:



Meibomian Gland Dysfunction

- Aberrant meibum production
- Caused by
  - MG obstruction
  - MG dropout
  - Changes in gland secretion

Symptoms: Red/sore eyes – worse in the afternoon
Burning/stinging sensation
Intermittent blurred vision
Light sensitive

Diagnostics: SLE + Diagnostic MGX
Meibography
NaFl /Lissamine Green staining

6

Q1 How do you currently treat MGD in practice?

A) Warm compresses/lid massage/eyelid hygiene/Artificial tears/Omega 3 0%

B) A. + Pulse topical steroids/ciclosporine 0%

C) A.+B. PLUS In rooms treatments like Blephasteam/ IPL/ LLLT/ RexonEye 0%

D) Refer 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

7

TOPICAL TREATMENTS FOR MGD

TOPICAL TREATMENT

Lubricants
- Lipid containing (Systane Balance, Systane Complete, Optive Advanced, Cationorm, Rohto, Nova tears)
  - Aim to compliment natural lipid, improve TBUT
  - Stabilise TF to improve vision

Pulse topical steroids
- Ointment/drop/minim
- To manage acute lid margin/OS inflammation
- Can be used as a bridging course for 1 month prior to cyclosporine

Cyclosporine
- Long term inflammation control without steroid side effects
- Additionally inhibit T cells proliferation + activation

8

ORAL FISH OIL/NUTRITION FOR MGD

ORAL MEDICATION

Fish Oil (Omega 3 fatty acids)
- Recommended for mild-severe MGD (2400mg/day)
- Omega 3 fatty acids => anti-inflammatory for MG/lid margins
  => ↓ waxy build up within MG
- To be used as a supplement to improved diet

9

DEWS III – ESSENTIAL FATTY ACIDS

ORAL MEDICATION

Prospective, randomised, double masked RCT n=50 with MGD
- Group 1 – Omega 3 600mg EPA, 1640mg DHA
- Group 2 – 3000mg olive oil
- After 8 weeks, TBUT and MGD score were significantly improved to a greater degree in the Omega 3 group

Multicentre, randomised, investigator masked study n=107 with MGD following Cataract surgery
- Omega 3 vs Control
- After 12 weeks TBUT, Corneal staining, SPEED and OSDI were significantly improved in the Omega 3 group vs control
- MG quality and expressibility were significantly improved in the severe MG patients in the Omega 3 group only

Jo YJ, Lee JS. Effects of dietary high dose DHA omega-3 supplement in dry eye with meibomian gland dysfunction. *International journal of ophthalmology*. 2021;14(11):1700-1706.

Hong S, Woo M, Eom Y, et al. A Multicenter, Randomized, Clinical Trial Assessing the Effect of rTG-Omega 3 Supplementation on Meibomian Gland Dysfunction Patients after Cataract Surgery rTG-Omega 3 for Meibomian Gland Dysfunction. *J Ocul Pharmacol Ther*. Mar 2025;41(2):65-74.

10

DOCTOR CASE REPORT

58F (SM)
- Ongoing gritty, stinging & red sore eyes over the last few months
- No better with Refresh prn

GH: DM2, Mild Hypertension

Med: Metformin, HRT

SLE: MGD G3 + lid telangectasia OU
Inflamed LL OU R>L
SPK diffuse g3 OU
TBUT RE 3s / LE 4s
Bulbar conj hyperaemia g2 diffuse OU
Toothpaste meibum on MGX OU

How would you manage this patient if unresponsive to treatments?

11

Panel discussion

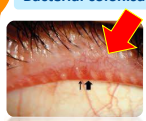
12

ORAL TREATMENT FOR MGD

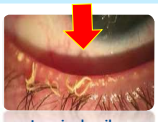
ORAL MEDICATION

MGD

Bacterial colonisation of S.aureus , S.epidermis , P.acnes & Cornyebacterium.



↑ inflammation of posterior eye lid margins



Impaired meibum consistency

↑ lipolytic enzymes (lipid to toxic fatty acids)
=> OS inflammation & TF instability

Low dose tetracycline (Doxycycline) / macrolide (Azithromycin) antibiotic

- **Dual effects** ❶ Anti-bacterial cover
  ❷ Anti inflammatory
- Also effective against posterior blepharitis & ocular rosacea (commonly seen in MGD)

13

DEWS III – TETRACYCLINE VS MACROLIDES

De Benedetti et al 2019

- RCT (115px of recalcitrant MGD failed to conservative /topical MGD tx)

ORAL MEDICATION

	PO Azithromycin (500mg on first day then 250mg for 4 days)	VS	PO Doxycycline (100mg bid for 7 days then 100mg for 21 days)
Effectivity on MGD	▪ 83.25% stable after 1 tx ▪ 16.5% needs further 1 or 2 tx ▪ 5.77% did not improve		▪ 33.79% stable after 1 tx ▪ 66.21% needs further 1 or 2 tx ▪ 29.41% did not improve
Adverse effects	▪ 6% GI side effects		▪ 24% GI side effects

Conclusions:

❶ Both are effective tx in persistent MGD
❷ PO Azithromycin superior to PO Doxycycline
- **Shorter therapy (5days vs 1 month)**
- **Lesser GI adverse effects**
- **Superior improvements in VA+ conj redness + corneal staining**

De Benedetti G, Vaiano AS. Oral azithromycin and oral doxycycline for the treatment of Meibomian gland dysfunction: A 9-month comparative case series. Indian J Ophthalmol. 2019 Apr;67(4):464-471. doi: 10.4103/ijo.IJO_1244_17. PMID: 30900575; PMCID: PMC6446637.

14

DEWS III – TETRACYCLINE VS MACROLIDES

2024 Systemic review and meta-analysis of Azithromycin vs Doxycycline for MGD found:

ORAL MEDICATION

- Azithromycin may be more effective in reducing the signs of MGD
- Azithromycin demonstrated a betty safety profile, less gastrointestinal side effects
- Azithromycin risks of note - cardiac arrhythmias, pancreatitis, vertigo

- Doxycycline RCT found a modest improvement in patient symptoms (100mg bid)

Given the unclear long-term benefits, common gastrointestinal side effects, and potential serious systemic problems such as malignancies, the existing literature is insufficient to conclude that antibiotics are particularly useful in long-term MGD management, and these are rarely considered first line options.

Bukhari ZM, Alsudais AS, Bshnaq AG, et al. Oral Azithromycin versus Oral Doxycycline in the Treatment of Meibomian Gland Dysfunction: A Systematic Review and Meta-Analysis. *Clin Ophthalmol*. 2024;18:3353-3363.

15

Q2 What are the contra-indications of PO Azithromycin?

A) Asthma 0%

B) Heart diseases (tachycardia/rhythm irregularities) 0%

C) Liver diseases 0%

D) A + C 0%

E) B + C 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

16

Q3 Is Azithromycin safe for pregnant and breast-feeding patients?

A) Yes 0%

B) No 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

17

Summary of MGD treatment

TOPICAL

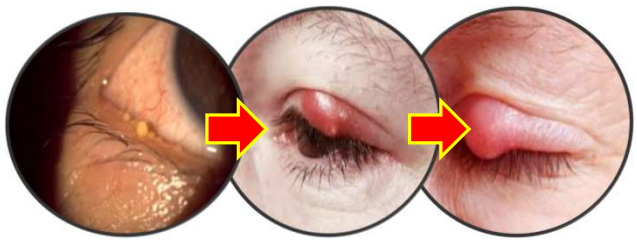
- Warm compresses bid + lid massage+ lid hygiene + lipid containing AT
- Heating devices (Blephasteam/Lipiflow) +MGX in office:
- Advanced technologies: IPL /LLLT /Rexon
- Short course FML/prednisolone minims qid 1/12 with taper
- Bridging FML qid 1/12 course then ciclosporine (Ikervis /Cequa) for 12/12
- Serum tears

ORAL

- 5-day course PO Azithromycin (500mg on day 1 , then 250mg for 4 days)
- Supplementary nutrition: Fish Oil 2400mg/day or Flaxseed Oil 1000mg/day

18

COMPLICATIONS OF MGD



MGD STYE(Hordeolum) CHALAZION

19

Q4 How do you manage chalazion?

A) Hot compresses/Lid hygiene/Chlorsig Ung 0%

B) A.+ send to GP for oral AB 0%

C) A.+ IPL/LLLT 0%

D) Refer 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

20

Panel discussion

21

WHAT DOES THE LITERATURE SAY?

Alsoudi et al 2022

- Cross sectional study 2012- 2018 (n=2712)
- **No significant difference in resolution rate with addition of AB (topical & oral) compared to conservative management in BOTH chalazion & hordeolum**

ORAL MEDICATION

Chalazion	Resolution rate
Conservative (warm compresses tid-qid ± eye lid hygiene)	76.7%
Conservative + Abx	73.2%
Abx alone	75.0%
Intralesional steroid	88.2%
Incision& Drainage (I&D)	92.0%
Combo intralesional steroid + I&D	97.5%
Full thickness eyelid resection	100%

Hordeolum	Resolution rate
Conservative (warm compresses tid-qid ± eye lid hygiene)	93.5%
Conservative + Abx	93.0%
Abx alone	92.9%
Intralesional steroid	100%
Incision& Drainage (I&D)	93.9%
Combo intralesional steroid + I&D	100%
Full thickness eyelid resection	100%

Alsoudi AF, Ton L, Ashraf DC, Idowu OO, Kong AW, Wang L, Kersten RC, Winn BJ, Grob SR, Vagefi MR. Efficacy of Care and Antibiotic Use for Chalazia and Hordeola. Eye Contact Lens. 2022 Apr 1;48(4):162-168. doi: 10.1097/ICL.0000000000000859. PMID: 35296627; PMCID: PMC8931268.

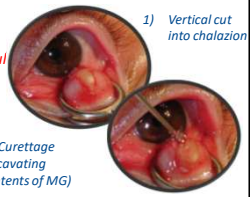
22

SURGICAL MANAGEMENT OF CHALAZION

SURGICAL TREATEMENT

A10 triamcinolone steroid intralesional injection
(success rate 75-84%)

If not successful



1) Vertical cut into chalazion

2) Curettage (excavating contents of MG)

Incision + curettage

23

WHICH PROCEDURE IS BETTER IN CHALAZION?

SURGICAL TREATEMENT

Goawalla et al 2007

- The only RCT that looked at surgical vs conservative management
- n = 136
- Resolution & patient satisfaction higher in surgical group
- No sig difference in intralesional steroid and Incision & Drainage for Chalazion treatment (P<0.001)

	Conservative mx	VS	Intralesional steroid	VS	Incision & Drainage
Resolution rate	46%		84%		87%

Goawalla A, Lee V. A prospective randomized treatment study comparing three treatment options for chalazia: triamcinolone acetonide injections, incision and curettage and treatment with hot compresses. Clin Exp Ophthalmol. 2007 Nov;35(8):706-12. doi: 10.1111/j.1442-9071.2007.01617.x. PMID: 17997772.

24

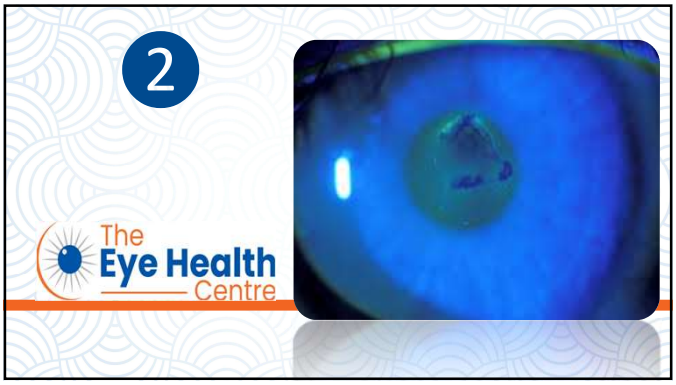
Summary of chalazion treatment

TOPICAL
- Warm compresses , lid massage bid, lid hygiene
- IPL + MGX sessions in clinic

ORAL
- PO Cephalexin/Augmentin Duo Forte (acute infections)
- PO Azithromycin 500mg/day for 5days
- PO Doxycycline 100mg/day for 3months

SURGERY
- A10 injection
- Incision + curettage

25



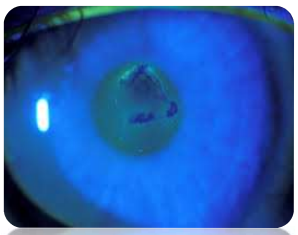
26

Interactive session time

In group of 5-8 people, please work through the following questions.

27

TIME FOR GROUP DISCUSSION



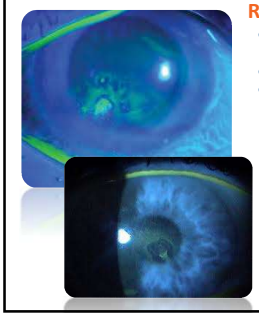
1) What is your diagnosis based on the slit lamp image?

2) Risk factors for this condition?

3) What are the common symptoms?

28

DIAGNOSIS CONDITION TWO :



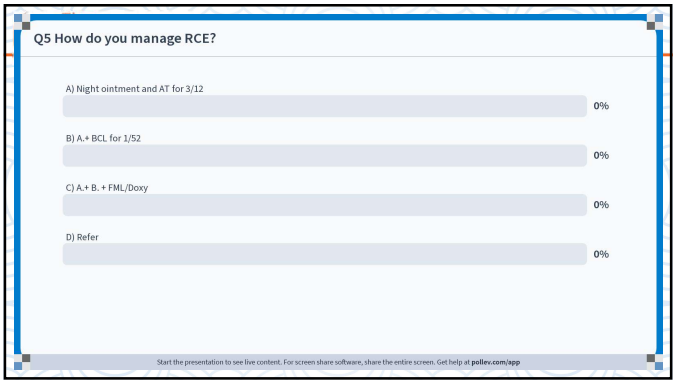
Recurrent corneal erosion

- Abnormal adhesion of corneal epithelium to underlying basement membrane
- Occurs in areas across the cornea
- Demographics: 30-40yo and F>M

Risk factors:
- **Prev ocular trauma** (scratch/chemical burn/FB)
- EBMD
- Other corneal dystrophies (FED, Reis Buckler , Granular, Lattice and Macular dystrophy)
- Dry eyes/rosacea/MGD/ previous corneal infection

Symptoms:
- Blurred vision (irregular astigmatism)
- Eye pain especially on waking / FBS
- Light sensitive
- Watery eyes

29



30

TOPICAL TREATMENTS FOR RCE

TOPICAL TREATMENT

Acute attacks

PF AT qid

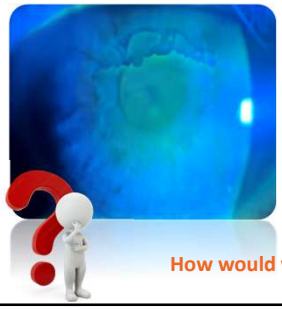
BCL (Ocuflox bid + FML qid) 1-2mths
- Provides buffer between epithelium and lids: aids re-epithelisation
- ↓ pain

Punctal plugs
- Increases tear volume

Night-time ointment
- To limit friction between epithelium & lids during sleep
- Enables epithelial adhesion complex to develop

31

DOCTOR CASE REPORT



65 yo Male (MC)
- LE Scratched with a fingernail from his grandson 3/12 ago
- 4 episodes of LE pain mane recently in Dec and Jan
- No relief with Genteal nocte + Hyloforte qid
- No improvement with BCL for one week (inserted by Optometrist)

VA cgl R 6/12 L 6/7.5

How would you manage this patient?

32

Panel discussion

33

TOPICAL TREATMENTS FOR RCE

TOPICAL TREATMENT

Chronic episodes

Hypertonic saline qid (drops/ointment)
- Limits nocturnal epithelial edema that can be linked to reduced epithelial adhesion

Amniotic membrane
- Reduces inflammatory mediators
- Provides artificial basement membrane for re-epithelisation

34

ORAL TREATMENT FOR RCE

ORAL MEDICATION

Oral Doxycycline

- Inhibits enzymes MMP-9 & MMP-2
  - Enzymes linked to
    - Breaking down of collagen & hemi-desomosomes
    - Disrupts epithelial adhesion complex
    - Increases RCE risk
- **Dosage: 50mg bid for 2-3/12**
- Works best when **combined with FML tid 2-3/52**

(NOTE: Topical corticosteroid can be used to reduce MMP activity & expression also)

35

WHAT DOES THE LITERATURE SAY?

ORAL MEDICATION

Dursun et al 2001
- Retrospective case series (n=7)
- All RCE px (failed with conventional mx) received PO Doxycycline 50mg 2/12 + g.Pred forte/FML tid 2-3wk
- Conclusions:
  - **100% symptoms improved, no pain, ED healed within 2-10 days after starting tx**
  - **No recurrence seen on average 21.9 months**

Wang et al 2007
- Retrospective case series (n=21)
- All RCE patients treated with PO Doxycycline 50mg bid min 4/52 + g.FML tid min 4/52.
- Conclusions:
  - **71% symptoms free at 8/52 post ceasing tx**
  - **83% had nil symptoms and relapse at 6 months post ceasing tx**

Dursun D, Kim MC, Solomon A, Pflugfelder SC. Treatment of recalcitrant recurrent corneal erosions with inhibitors of matrix metalloproteinase-9, doxycycline and corticosteroids. Am J Ophthalmol. 2001 Jul;132(1):8-13. doi: 10.1016/s0002-9394(01)00913-8. PMID: 11438047.

Wang L, Tsang H, Coroneo M. Treatment of recurrent corneal erosion syndrome using the combination of oral doxycycline and topical corticosteroid. Clin Exp Ophthalmol. 2008 Jan-Feb;36(1):8-12. doi: 10.1111/j.1442-9071.2007.01648.x. PMID: 18290949.

36

SURGICAL MANAGEMENT FOR RCE

SURGICAL TREATEMENT

Aims of any RCE surgical technique:

1. To remove the defective epithelium
2. To allow the epithelium to re-generate & form improved adhesion to the stroma

37

SURGICAL MANAGEMENT FOR RCE

SURGICAL TREATEMENT

	Epithelial debridement	Anterior stromal puncture	Diamond burr polishing	PTK
What is it?	Epithelium removed with 25g needle followed by BCL	Piercing into affected cornea with 25g needle.	Epi off with 25g needle followed by polishing Bowman layer with burr. Then BCL is inserted	Excimer laser ablation of central cornea through to Bowman's layer and stroma
Cornea tx	Central cornea	Peripheral cornea only	Central cornea	Central 8mm
Success rate	65-85%	Approx 80%	Up to 95% (when combined with epithelial debridement)	60-100%

38

Summary of RCE treatments

TOPICAL

- PF AT qid + ointment nocte
- BCL 1/52 (Ocuflox qid cover + FML qid)
- Punctal plugs
- g. NaCl 5% qid + NaCl 5% ung nocte
- Amniotic membrane (AmnioTek-C)

ORAL

- PO Doxycycline 50mg bid 2/12 + FML tid 3/52

SURGERY

- Anterior stromal puncture *(for peripheral RCE)*
- Epithelial debridement ± diamond burr polishing *(central)*
- PTK *(only 8mm central)*

39

3

40

Interactive session time

In group of 5-8 people, please work through the following questions.

41

TIME FOR GROUP DISCUSSION

1) What is your diagnosis?
2) What could be a differential diagnosis?
3) What are the risk factors for recurrence of this condition?
4) What is a differential diagnosis from a different pathogen?
5) How might you prevent recurrences?

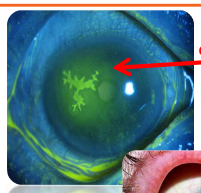
42

DIAGNOSIS CONDITION THREE :

Herpes Simplex Keratitis

Reactivation risk factors:
- Stress
- Heat
- Sunlight
- Trauma
- Steroid use
- Immunocompromise

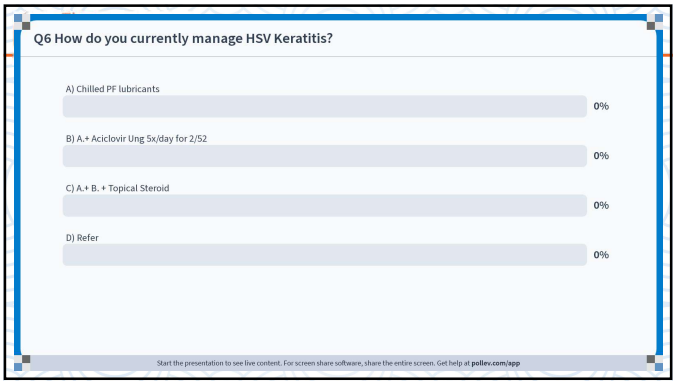
Clinical presentation:
- Dendritic ulcer/geographic ulcer
- Uveitis
- ↓ Corneal sensation
- Pain is rare



Classic dendritic HSV ulcer
Live virus @ terminal buds

Geographic HSV ulcer
Live virus @ scalloped edges

43



44

TOPICAL TREATMENTS FOR HERPETIC KERATITIS

TOPICAL TREATMENT

Aciclovir 3% ointment
- 5x/day for 2/52
- For efficiency, start asap ideally within 72h of rash/blisters
  - Beware corneal toxicity **
  - Concurrent PF AT at least qid

Add Maxidex /Prednefrin Forte qid
- If stromal involvement /uveitis
- Must have Oral anti-viral cover!
- Long slow taper of steroid
- ± Timolol XE 0.5%mane/ Alphagan bid if IOP spike

45

COMMON DIFFERENTIAL DIAGNOSIS

Herpes Zoster (Shingles) Keratitis

Clinical presentation:
- Skin blisters → rash (Hutchinson's sign)
- Punctate epithelial keratitis
- **Pseudo-dendritic ulcer**
- Anterior uveitis
- Retinitis/optic neuritis
- Partial/complete paralysis of EOM
- Neuralgia pain

Pseudo-dendrites: x central ulceration
x terminal bulbs (tapered ends)
lack central NaFl staining

46

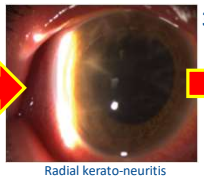
DIFFERENTIAL DIAGNOSIS OF HERPETIC KERATITIS

Acanthamoeba keratitis

1)

Epithelial/subepithelial infiltrate appearing as **pseudo-dendrites** **(70% misdiagnosed as herpetic initially!)**

2)



Radial kerato-neuritis (inflamed corneal nerves in a web-like pattern)

3)

Stromal ring infiltrate

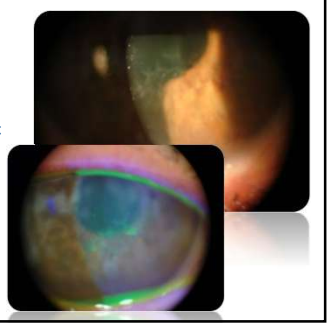
Beware early acanthamoeba keratitis if dendrites not resolving with anti-viral*

47

GROUP CASE REPORT

MP F (67yo)
- RE red and sore for the last 2 days
- Has Advanced Glaucoma and currently on Xalacom nocte OU
- Has Dry AMD + Cataract OU + Optic Atrophy LE
- VA R 6/10 L LP
- IOP R14mmHg L 13mmHg

How would you manage this patient?



48

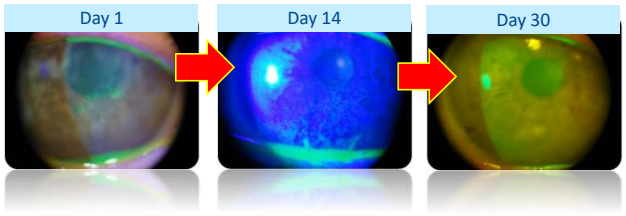
The Eye Health Centre

Interactive session time

In group of 5-8 people, please work through the following questions.

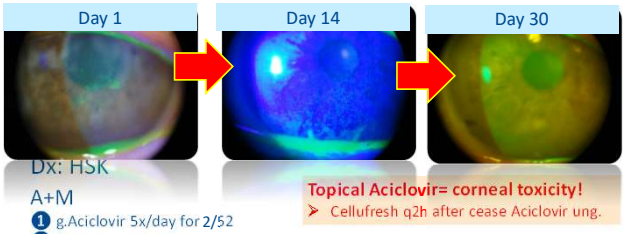
49

The Eye Health Centre



50

The Eye Health Centre



Dx: HSK

A+M

1. g.Aciclovir 5x/day for 2/52
2. Cease Xalacom OU

(NOTE Prostaglandin is pro inflammatory & can reactive herpetic keratitis)

3. Change to Timolol XE mane OU
4. Lube regularly PF Hyloforte qid + Cellufresh q2h-qid after 2/52

Topical Aciclovir= corneal toxicity!

- Cellufresh q2h after cease Aciclovir ung.

51

The Eye Health Centre

Panel discussion

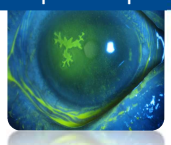
52

The Eye Health Centre

ORAL TREATMENT FOR HERPETIC KERATITIS

ORAL MEDICATION

Herpes simplex



Valtrex 500mg tid for 2/52
Or
Famciclovir 250mg tid for 2/52
Or
Aciclovir 400mg 5x/day for 2/52

VS

Herpes zoster

Double dose for HZO*

Valtrex 1000mg tid for 2/52
Or
Famciclovir 500mg tid for 2/52
Or
Aciclovir 800mg 5x/day for 2/52

53

The Eye Health Centre

ORAL TREATMENT FOR HERPETIC KERATITIS

ORAL MEDICATION

To avoid recurrent episodes:

- PO Valtrex 500mg once daily for 1 year

- Zostvax/Shingrix vaccine for patients >65yo

54

VALTREX PRECAUTIONS

ORAL MEDICATION

Valtrex

Contraindications
- Allergic to Aciclovir
- Renal impairment
  - Acute renal failure if overdose

Pregnancy/breast feeding/children
- Safe at
  - All stages of pregnancy
  - While breast feeding
  - Children >2yo (for < 2yo, IV Aciclovir is preferred)

55

WHAT DOES THE LITERATURE SAY?

ORAL MEDICATION

Herpetic Eye Disease Study:
PO Aciclovir on prevention of recurrent Herpetic Simplex eye disease

- RCT (n= 703 immunocompromised px with POH HSK)
- **PO Aciclovir 400mg bid 1yr vs Placebo**
- **Conclusions:**
  - **PO Aciclovir group had 45% lower risk of recurrence of any type of ocular HSV disease**
  - **No evidence of rebound post treatment cessation**

Acyclovir for the prevention of recurrent herpes simplex virus eye disease. Herpetic Eye Disease Study Group. N Engl J Med. 1998 Jul 30;339(5):300-6. doi: 10.1056/NEJM199807303390503. PMID: 9696640.

56

SURGICAL MX FOR HERPETIC KERATITIS

SURGICAL TREATEMENT

For severe cases:

Therapeutic PK (last resort)
- Replaced infected cornea with donor cornea
- Also to remove corneal scarring for vision rehabilitation
- Beware graft rejection* (higher risk cf to normal PK for non-infectious cases like KCN)

57

Q7 What are the contraindications for Valtrex?

A) Renal impairment 0%

B) A.+ Allergy to Aciclovir 0%

C) A.+ B. + Pregnant 0%

D) A.+ B. + Pregnant+ > 2 years old 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

58

Summary of HZO/HSV treatment

TOPICAL
- g. Aciclovir 5x/day for 2/52
- Maxidex/Pred forte qid *(if stromal involvement/uveitis)?*

ORAL

HSK	PO Valtrex 500mg tid PO Famcilovir 250mg tid PO Aciclovir 400mg 5x/d	
HZO	PO Valtrex 1000mg tid PO Famcilovir 500mg tid PO Aciclovir 800mg 5x/d	TIP: Double the dosage for HZO!

SURGERY
- Therapeutic penetrating keratoplasty (PKP)

59

4

60

The Eye Health Centre

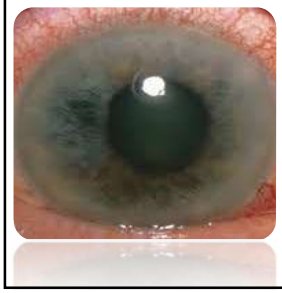
Interactive session time

In group of 5-8 people, please work through the following questions.

61

The Eye Health Centre

TIME FOR GROUP DISCUSSION



1) What symptoms might you expect with this condition?
2) What are some of the clinical signs of this condition?
3) What are the risk factors?

62

The Eye Health Centre

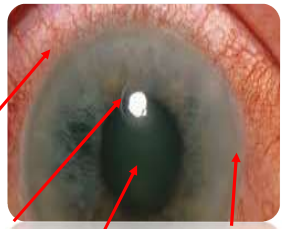
DIAGNOSIS CONDITION FOUR :

Acute Angle Closure (AAC)

- Ocular emergency
- Sudden rapid ↑ IOP from angle closing
- Can reach as high as 60-80mmHg

Symptoms:

- Blurred vision
- Eye pain
- Headaches
- Halos around lights
- Nausea/vomiting



63

The Eye Health Centre

REVISION OF WHAT IS AAC

Acute angle closure (AAC)

Risk factors:

Middle Age
55-65yo

Female gender
Females 2-4x higher risk vs males

Hyperopia

South-East Asians/Chinese /Inuit race

Certain meds

- Tropicamide
- Atropine/cyclopentolate
- Topiramate
- Sulfonamide
- Duloxetine
- Phenothiazines

64

Q8 How do you manage Acute Angle Closure in your practice?

A) Refer same day to Ophthalmologist/ED	0%
B) Start Timolol stat.	0%
C) Start Alphagan stat.	0%
D) Start Xalatan stat.	0%
E) Start Pilocarpine	0%
F) Start B. +C. +E.?	0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

65

Q9 How do you manage a 60 yo PACS patient in your clinic?

A) Review 6/12	0%
B) Review 12/12	0%
C) Refer for Laser PI	0%
D) Refer for Cataract Surgery	0%
E) Start on Simbrinza bid	0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

66

TOPICAL TREATMENTS FOR AAC

TOPICAL TREATMENT

Combination of different glaucoma drops to rapidly ↓ IOP:

1. **B blocker (1 drop Timolol 0.5%)**
   ↓ aqueous production
2. **Alpha-agonist (Alphagan 0.2%/Iopidine 1 drop)**
   ↓ aqueous production + ↑ outflow of aqueous thru TM

Prostaglandin not ideal (slow acting)

3. **CAI (Azopt 1% 1 drop)**
   ↓ aqueous production
4. **Pilocarpine 1% 1 drop every 15min (total 2 dose) once IOP <40**
   ↑ outflow of aqueous
   To also prep for laser PI

67

CONTRAINDICATIONS OF ANTI-GLAUCOMA DROPS

TOPICAL TREATMENT

B blocker (Timolol 0.5%)
- Respiratory: Asthma /COPD
- Cardio: Bradycardia, heart failure/ block
- Pregnant/lactation

Alpha-agonist (Alphagan/Iopidine)
- Taking MAO inhibitors/ systematic sympathomimetics/ tricyclic anti-depressants

CAI
- Sulphur allergy
- Severe renal failure
- Hyperchloraemic acidosis
- Pregnant/lactation

Pilocarpine 1%
- Liver diseases
- Uncontrolled asthma
- Pregnant/lactation

68

Panel discussion

69

PROTOCOL IN-ROOM FOR ACUTE ANGLE CLOSURE EPISODE

1. PO Diamox 500mg stat. then 250mg qid until LPI
2. g. Maxidex /Pred forte q2hr
3. g. Combigan bid
4. g. Pilocarpine tid

SAME DAY EMERGENCY REFERRAL TO HOSPITAL

70

ORAL TREATMENT FOR AAC

ORAL MEDICATION

PO Diamox 500mg stat. then 250mg qid
- CAI : Powerful ↓ aqueous production
- Additive therapy if topical drops failed
- More rapid decrease in IOP than topical agents

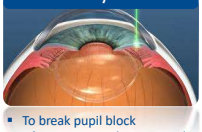
- **Contraindications :**
  - Sulphur allergy
  - Liver diseases
  - Renal diseases
  - Severe lung diseases (COPD, Asthma)
  - Pregnant/lactation

71

SURGICAL MANAGEMENT FOR AAC

SURGICAL TREATEMENT

Same day laser PI



- To break pupil block
  - ➢ Aqueous to bypass pupil and outflow to TM
- Reducing bowing of iris
  - ➢ Opening the angle

Cataract sx

- Once acute episode resolves
- Remove maturing cataract reduces bowing of the iris into the angle
  - ➢ Effectively opening the angle and prevent further attacks

Best to have early cataract surgery /LPI to prevent attacks

72

WHAT DOES THE EAGLE STUDY SAY?

SURGICAL TREATEMENT

Cataract surgery vs LPI for PAG/PAC (RCT)

419 px (PAC/PAG)

208 px CE/IOL

- 21% need further topical tx to control IOP
- 1 px needed further glaucoma sx

211 px LPI

- 61% need further topical tx to control IOP
- 24 px needed further glaucoma sx
- 12 px proceeded CE/IOL re vision issues

Conclusion: CE/IOL should be considered as first line tx for PAG/PAC px (better in the long term in IOP control &VA)

Azuara-Blanco A, Burr J, Ramsay C, Cooper D, Foster PJ, Friedman DS, Scotland G, Javanbakht M, Cochrane C, Norrie J; EAGLE study group. Effectiveness of early lens extraction for the treatment of primary angle-closure glaucoma (EAGLE): a randomised controlled trial. Lancet. 2016 Oct 1;388(10052):1389-1397. doi: 10.1016/S0140-6736(16)30956-4. PMID: 27707497.

73

Q10 What is your referral criteria of when to refer for narrow angles?

A) Narrow Van Herick Angle 0%

B) Narrow Angle on Gonioscopy 0%

C) Narrow Angle on Anterior OCT 0%

D) Symptoms of transient blurred vision and headaches 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

74

Summary of AAC treatment

TOPICAL

- If possible, combination drops (eg. Combigan bid).
- B Blockers (Timolol) *(avoid in respiratory /heart diseases)*
- Alpha agonist (Alphagan/Iopidine)
- CAI (Azopt) *(make sure no sulfur allergy)*
- Pilocarpine tid (when IOP <40)

ORAL

- PO Diamox 500mg stat then 250mg qid *(make sure no sulphur allergy)*

SURGERY

- LPI emergency
- Cataract surgery (once episode resolves)

75

DROPS, PILLS, BLADES

COMPREHENSIVE MANAGEMENT OF COMMON ANTERIOR EYE CONDITIONS

Dr Andrew APEL, Dr Aaron CHIDGEY, Mr Jason HOLLAND

Advanced Glaucoma Surgery | Aviation Vision Care | Cataract Surgery | Corneal Transplants | Dry Eye Clinic | Keratoconus Care Clinic | Laser & Refractive Surgery | Pterygium | Vitreo Retinal Surgery

76