

Persistent Corneal Epithelial Defect after Phacoemulsification

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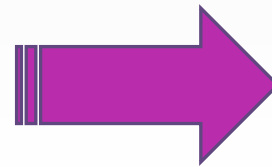
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○ NO CONFLICT OF INTEREST

Case report

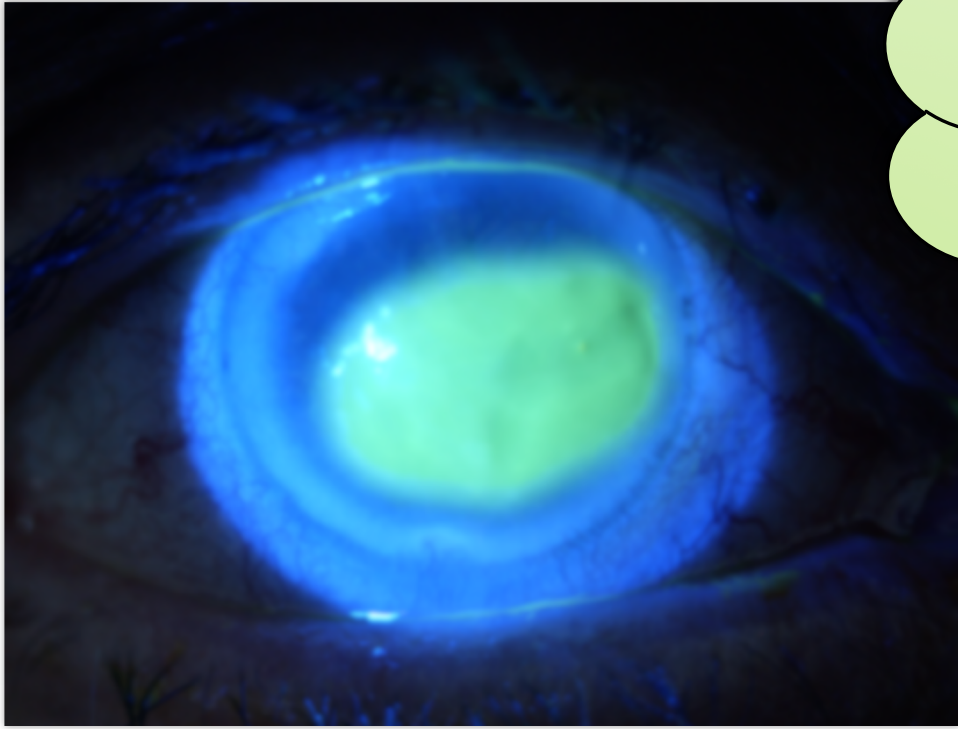
- 74 y.o. male
- M.H. (-) / Her. (-) / O.H.: keratitis os (20 years ago)
- On initial visit → VA: CF OU
RAPD(-) OU
IOP: 10/10 mmHg, NoTx OU
Cornea: clear od/ old scars os
Lens: PSLO ++ OU
Fundus: normal OU
CCT: 490/520 μm



**PHACOEMULSIFICATION
OD**

1st day post-op

Uncomplicated phaco surgery



A/C cells+3
Dry Eye

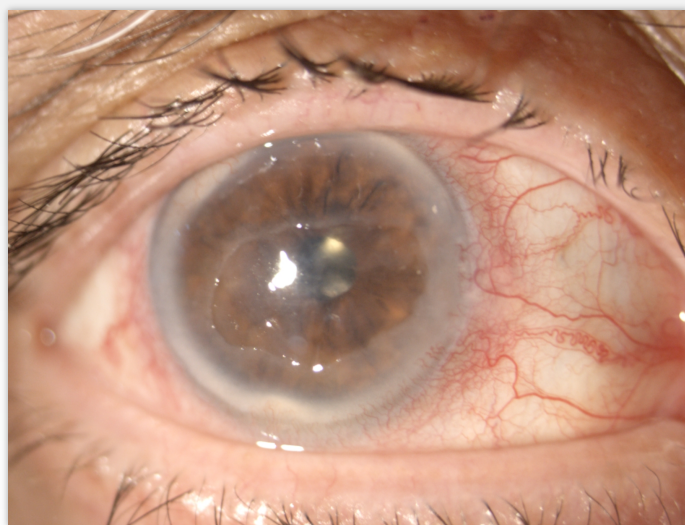
-Toxicity to drugs
(betadine, alcaine,
NSAIDs)?
-Mechanical
irritation?

- Stop NSAIDs
- Coll dexamethasone + chloramphenicol/2 h
- Lubricant drops/1h

2nd day post-op

3rd day post-op

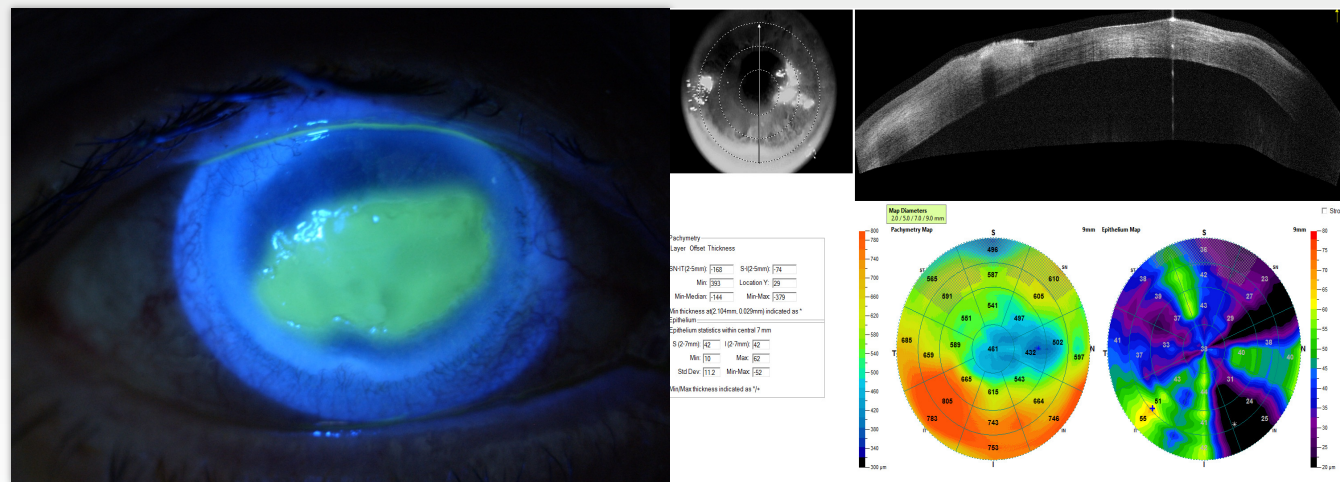
No improvement



A/C normal →

Dexamethasone + chloramphenicol *4

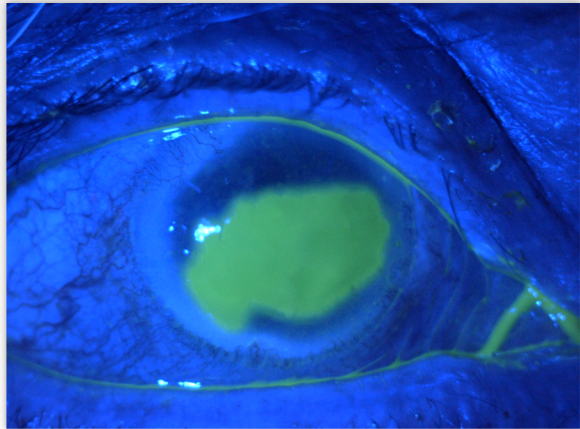
Start **autologous serum 20% * 4**



Corneal sensation ↓

Start tablets Valacyclovir 500 mg * 3
tablets Vibramycin 100 mg * 2

1 week post-op

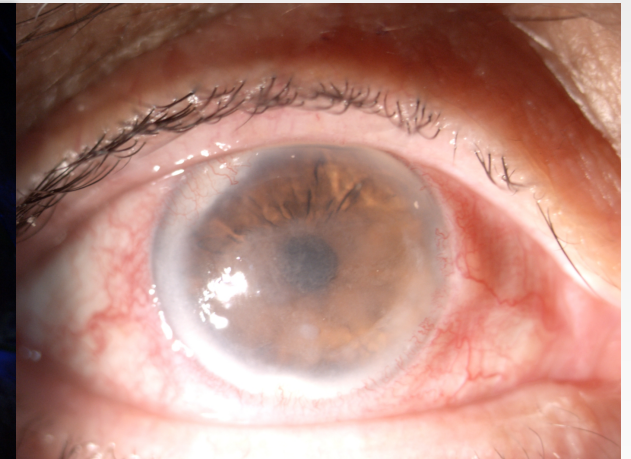
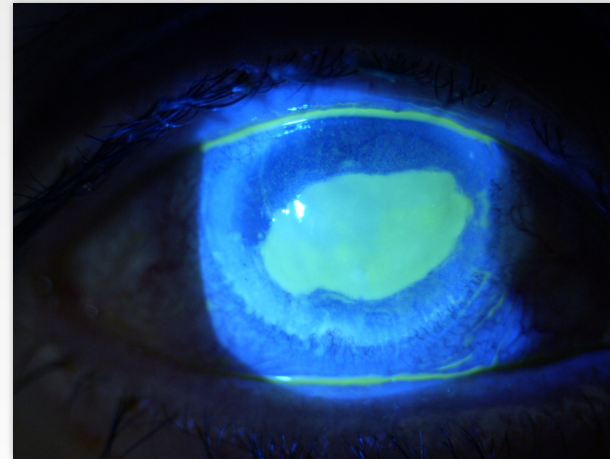


Immunological test (-)
HbA1c= 7.3%

+BCL

Change Tx: coll Ofloxacin * 4
coll Dexamethasone * 2
Autologous serum * 4
tabs Vibramycin * 2
tabs Valacyclovir * 3
Moisturizing drops / 1h

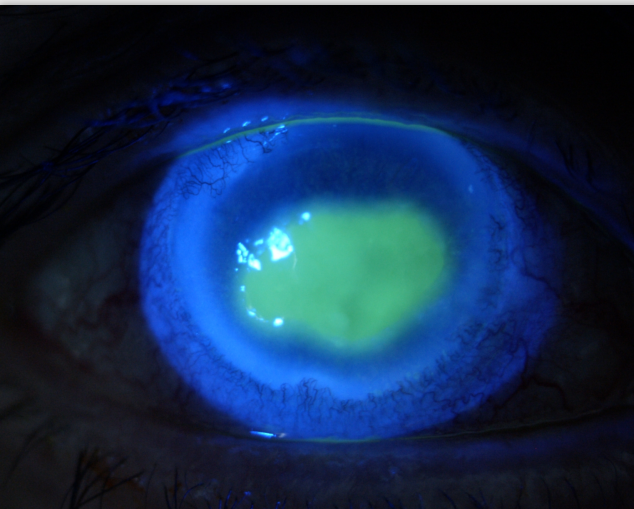
10 days post-op



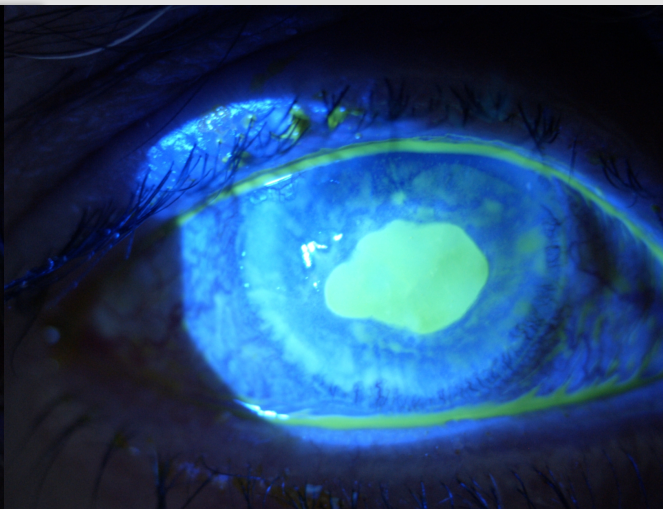
Stop tabs
valacyclovir



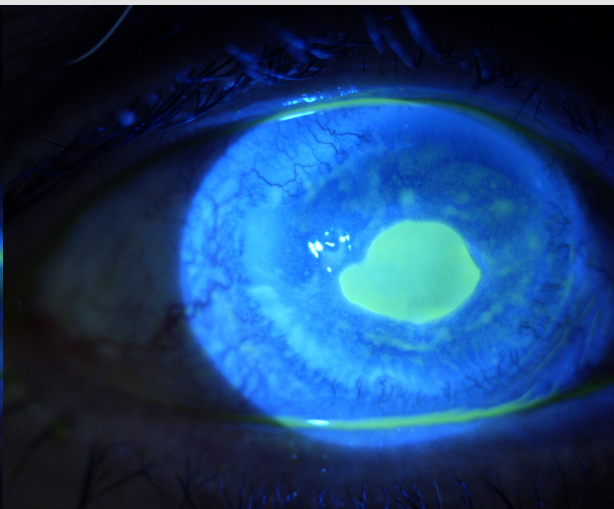
- Start coll insulin 25 IU/ml/1h
- Oint vit-A
- Moisture chamber eye patch



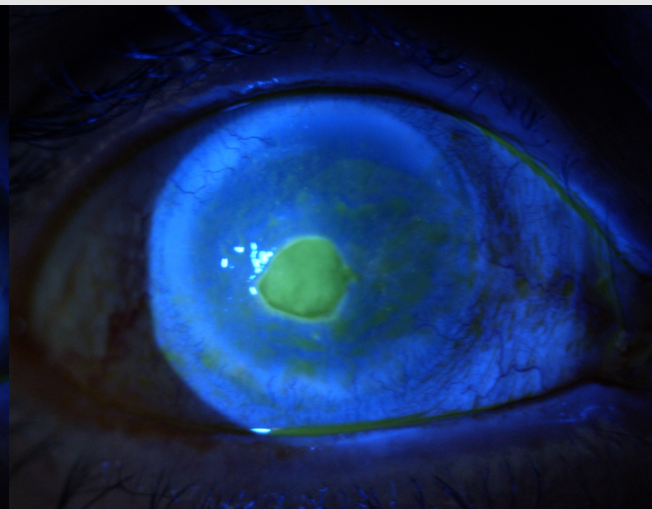
12th day



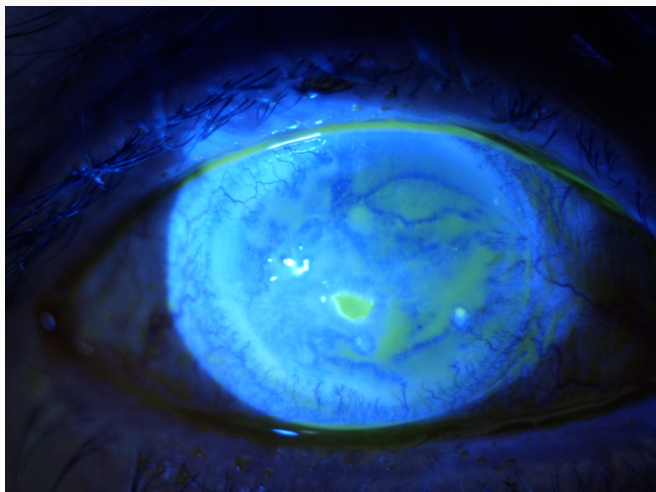
17th day



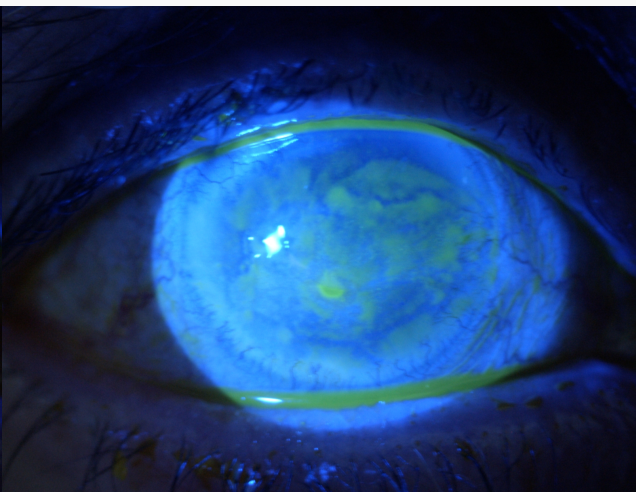
21st day



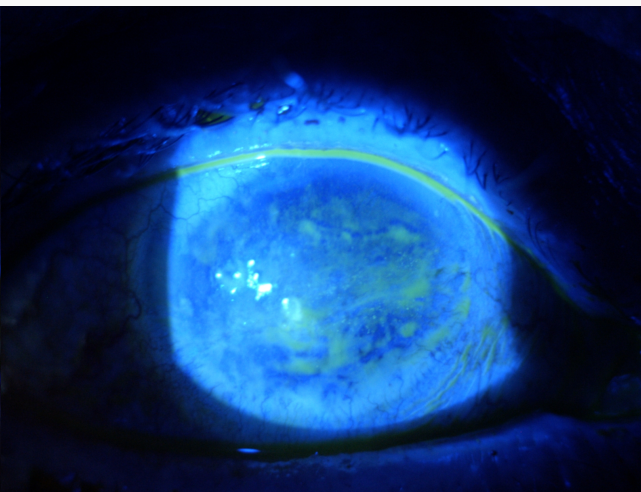
26th day



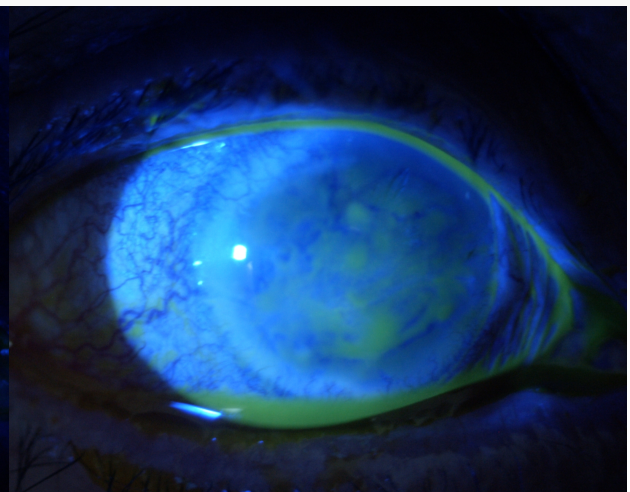
31st day



34th day



38th day



42nd day

Conclusions

- **Reduced corneal sensation** is a key diagnostic finding and should raise clinical suspicion
- Early recognition and a multimodal therapeutic approach are crucial for successful epithelialization
- **Topical insulin** facilitate corneal healing by stimulating epithelial proliferation, reducing inflammation and restoring cellular homeostasis
- **A moisture chamber eye patch** promotes corneal epithelialization by maintaining a stable, humid microenvironment that reduces tear evaporation, enhances epithelial cell migration and protects the ocular surface from desiccation and mechanical trauma
- Individualized management and close follow-up can lead to gradual epithelial recovery and prevention of sight-threatening complications