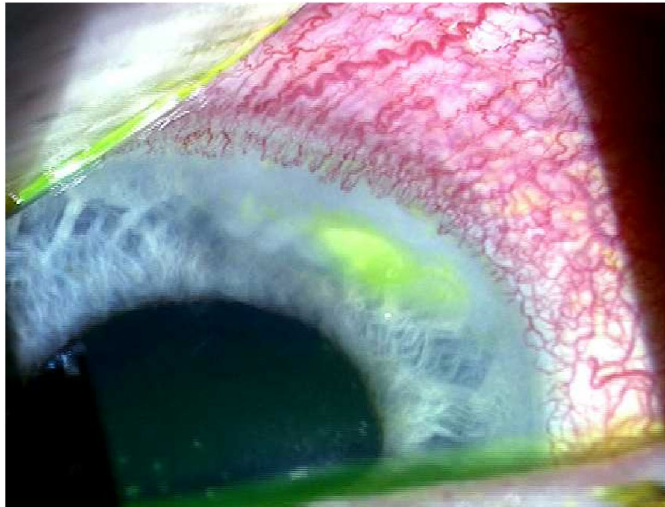


**CASE 15**

NOTES

*A 44 year-old African-American male presents with a very painful red eye for the past 24 hours.*



**Data acquisition:**

Describe what you see:

Peripheral corneal ulcer in the interpalpebral zone with an adjacent scleritis. There is no clear zone with the limbus and the central edge of the ulcer has the predominant infiltrate.

What additional information about the patient would be helpful?

1. Does he have any underlying systemic diseases?

Any circumferential peripheral ulcer warrants exclusion of systemic disease, especially CVD's and vasculitides with rheumatoid arthritis, the most common etiologies.

2. Did he emigrate from Africa?

Important because there are 2 types of Mooren's ulcers:

- a. Type 1: occurs in *older patient* (>40), *slowly progressive, unilateral*.
- b. Type 2: occurs in *younger patient* (30's), *B/L*, more common in Africa, rapidly progressive & poorly responsive to treatment, with increased risk of perforation. May also have coexistent parasitemia.

3. Any associated discharge or blepharitis?

May point toward infectious etiology, staph hypersensitivity or rosacea.

**Diagnosis:**

What is the differential diagnosis of peripheral ulcerative keratitis?

1. Ocular: infectious.
  - a. Bacterial: Staph, Strep, gonococcus, H flu, moraxella.
  - b. Viral: HSV, HZV.
    - i. Both HSV and HZV can cause PUK in the absence of dermatologic findings. Normally this is a consequence of production of limbal vasculitis.
  - c. Fungal.
  - d. Acanthamoebal.
2. Ocular: non-infectious:
  - a. Terrien's marginal degeneration.
  - b. Staph marginal keratitis.

c. Phlyctenulosis.

3. Systemic: infectious:

a. TB, syphilis, bacterial dysentery (shigella, salmonella), AIDS.

4. Systemic: non-infectious:

a. Rheumatoid arthritis: most common.

b. SLE.

c. Wegner's.

d. IBD.

e. PAN.

f. Sjogren's.

g. Relapsing polychondritis.

h. Rosacea.

i. Mooren's: diagnosis of exclusion.

How would you work this patient up?

1. Any circumferential peripheral ulcer warrants exclusion of systemic dz, especially CVD's & vasculitides.

2. Labs/radiology

CBC, CMP, ESR, ANA, RF, C-ANCA, ACE, Lysozyme, VDRL, FTA-ABS, Hep B and C serology. CXR and PPD.

3. Cultures: bacterial, viral and fungal.

If all testing were negative, what would your diagnosis be?

Mooren's ulcer.

What virus has Mooren's been associated with?

Hepatitis C.

**Management:**

1. Antibiotic prophylaxis, especially if epithelial defect and/or infiltrative in nature.
2. Tx keratolysis (melt) with intensive lubrication +/- BSCL so epithelium can heal to stop melt.
3. Topical steroids or CSA 2% helpful when infiltrative in nature, but if thinning with epithelial defect and min infiltrate, then topical steroids are not helpful and may exacerbate a melt (because they inhibit new collagen production), so can add a MMP inhibitor like minocycline or doxycycline.
4. Excision of adjacent conjunctiva often helps ulcer heal (eliminates the source of inflammatory cells and collagenase enzymes).
5. Systemic treatment usually needed to control systemic disease processes (PO steroids, MTX, CSA, azathioprine, cyclophosphamide, interferon if associated Hepatitis B or C).
  - Also needed when disease process continues despite aggressive topical therapy or if associated scleritis.