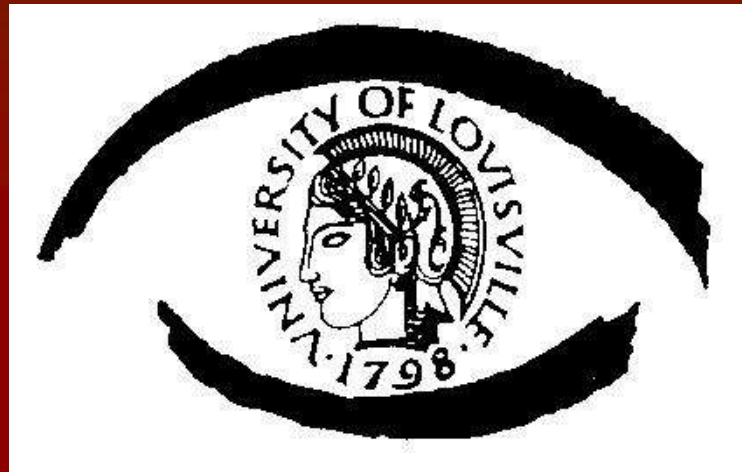


Grand Rounds



Jaafar El Annan, M.D.

University of Louisville

Department of Ophthalmology and Visual Sciences

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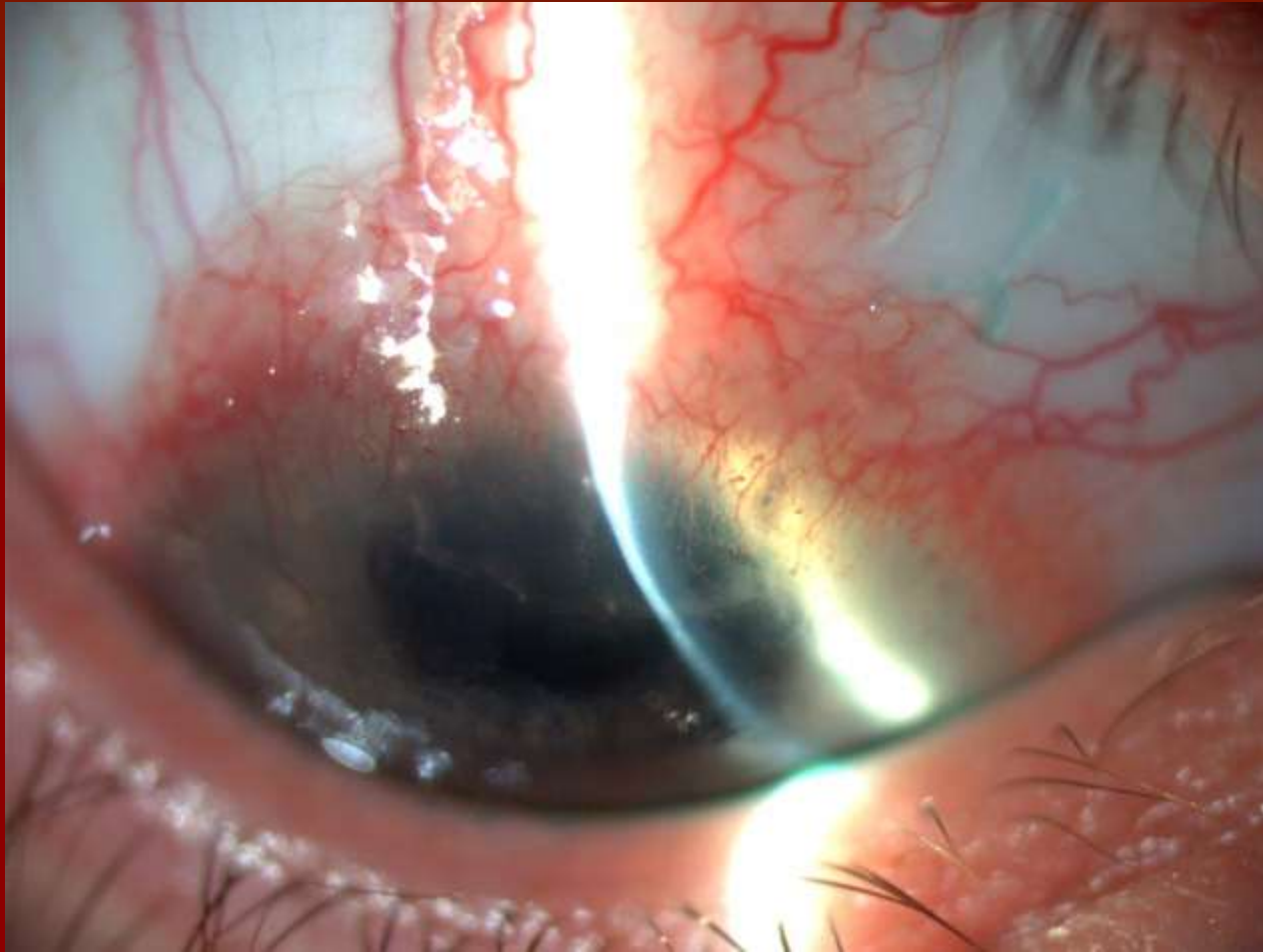
Presentation

- CC: Decreased vision in right eye for 10 years.
- HPI: A 30 year old complaining of painless gradual decrease in vision over the last 10 years. Denies any pain or discomfort.
- History
 - Herpes Zoster for 10 years
 - Persistent redness OD
 - Recent therapy with prednisolone acetate 1%
 - Oral Valtrex 500mg PO BID

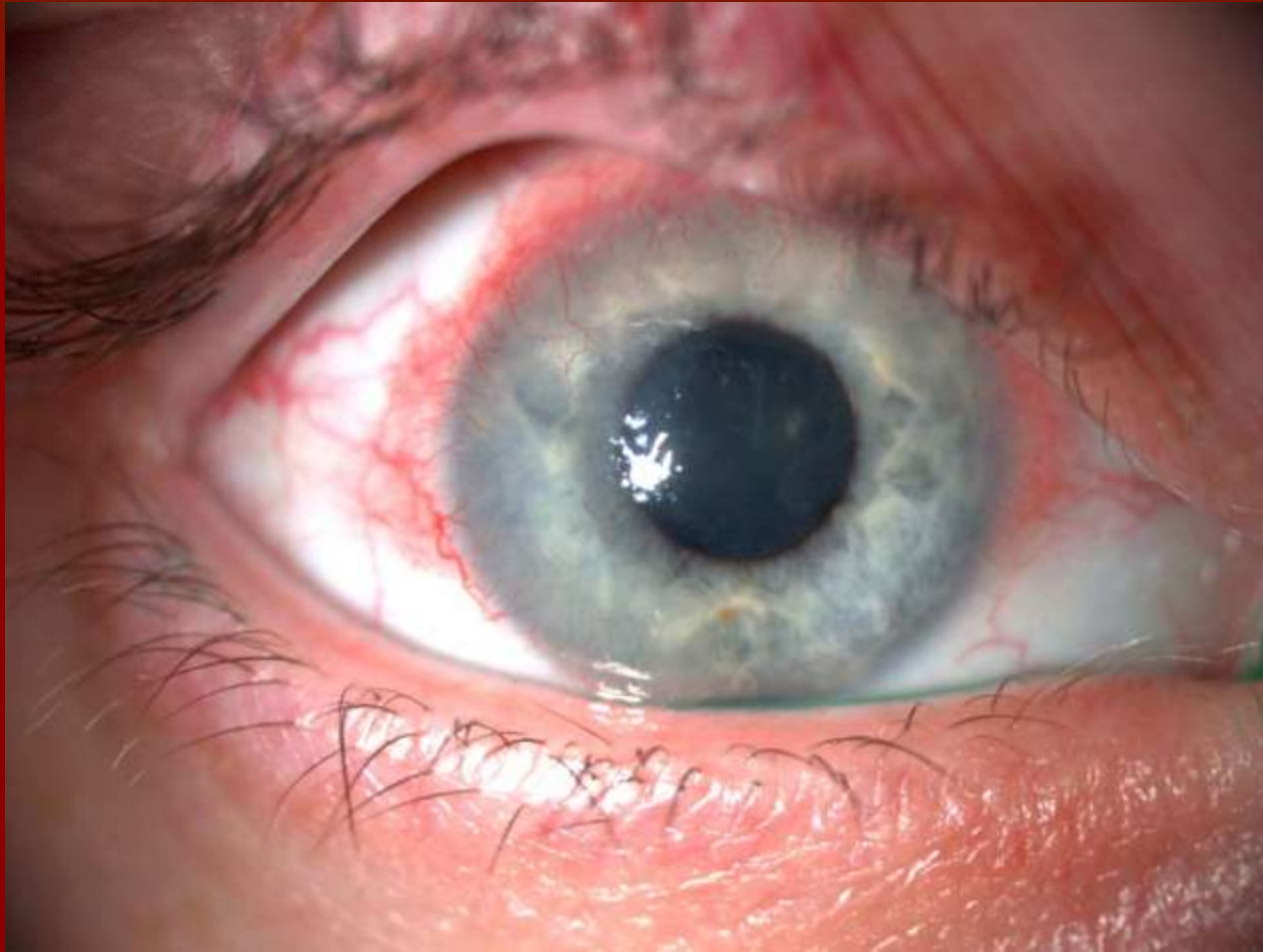
Objective

- VA OD 20/300 OS 20/20
- Corneal sensation (CB): OD 5 OS 6
 - Cochet-Bonnet(CB) esthesiometer
- OD elevated, gelatinous, vascularized lesion of superior conjunctiva onto cornea
- OS normal conjunctiva and cornea
- Rest of anterior segment exam is WNL OU.

Slit lamp photo of right eye



Slit lamp photo of right eye



Assesment and Plan

- Impression: papilloma (HPV) vs CIN
- Therapy: excisional biopsy
 - Routine histology
 - PCR for HPV

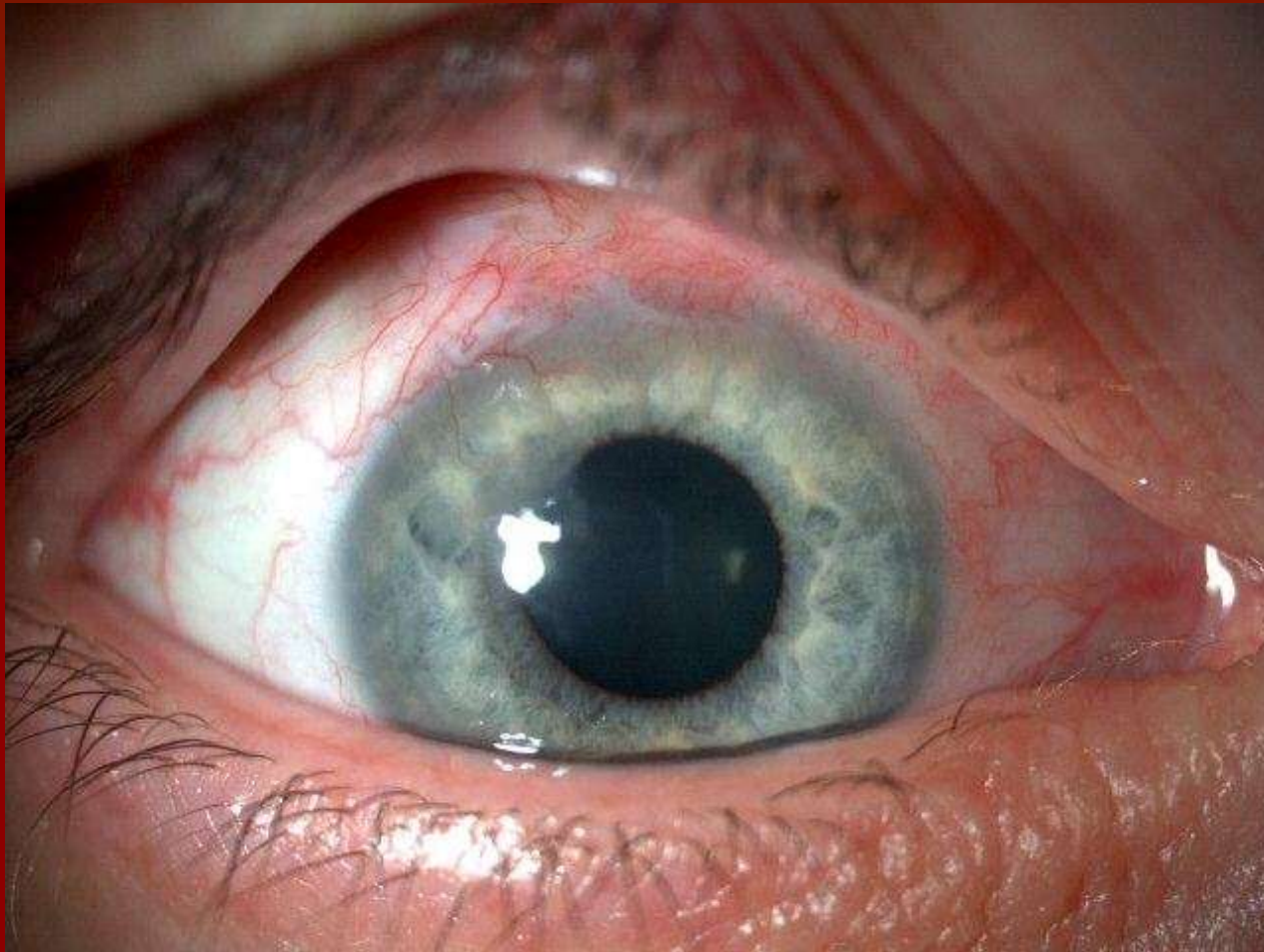
Post Biopsy



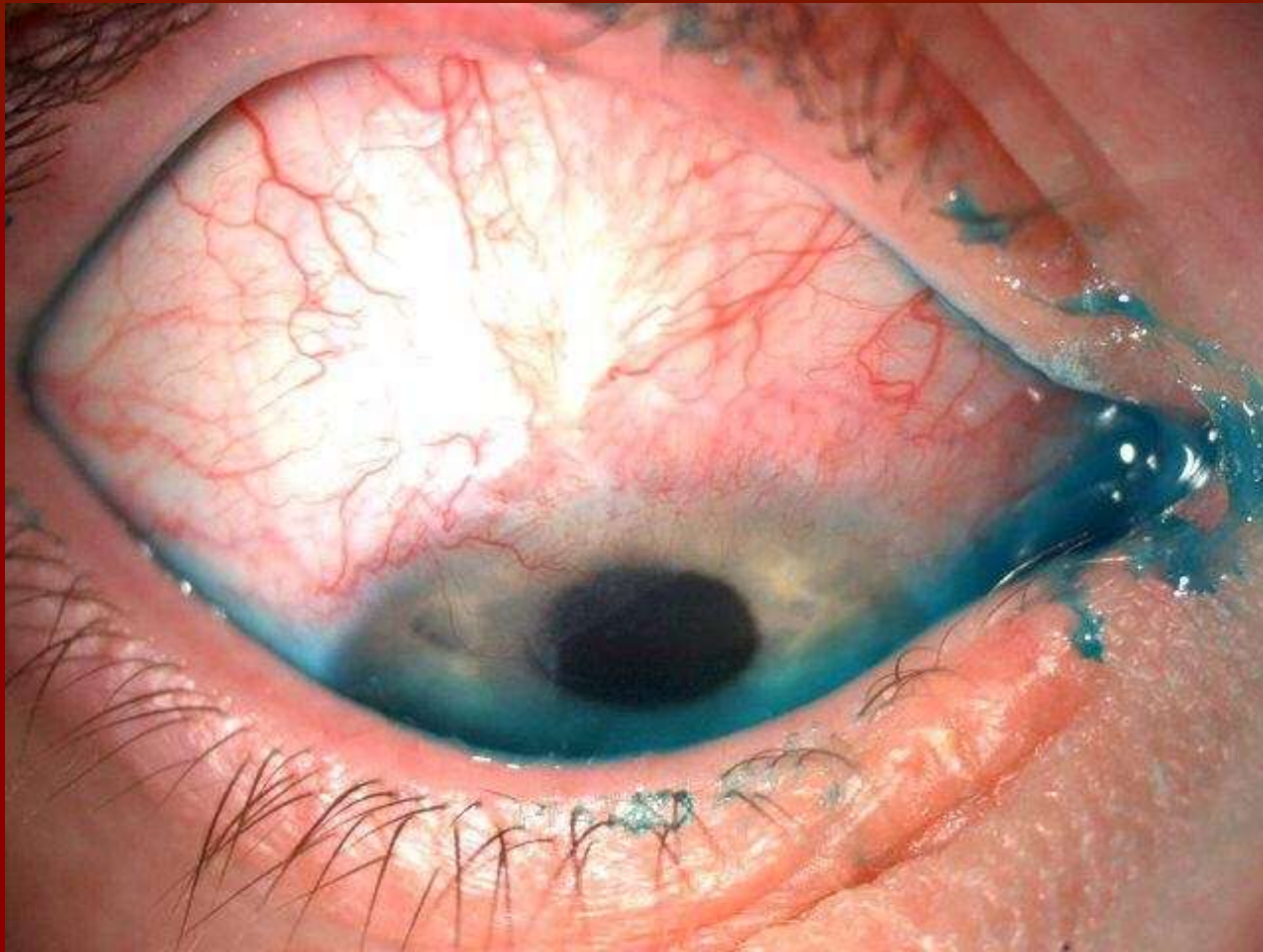
Diagnosis and treatment

- Diagnosis: CIN with HPV + PCR
- Therapy: Topical mitomycin C (MMC) 0.04% qid for two and one half weeks.

Post Therapy



Post Therapy



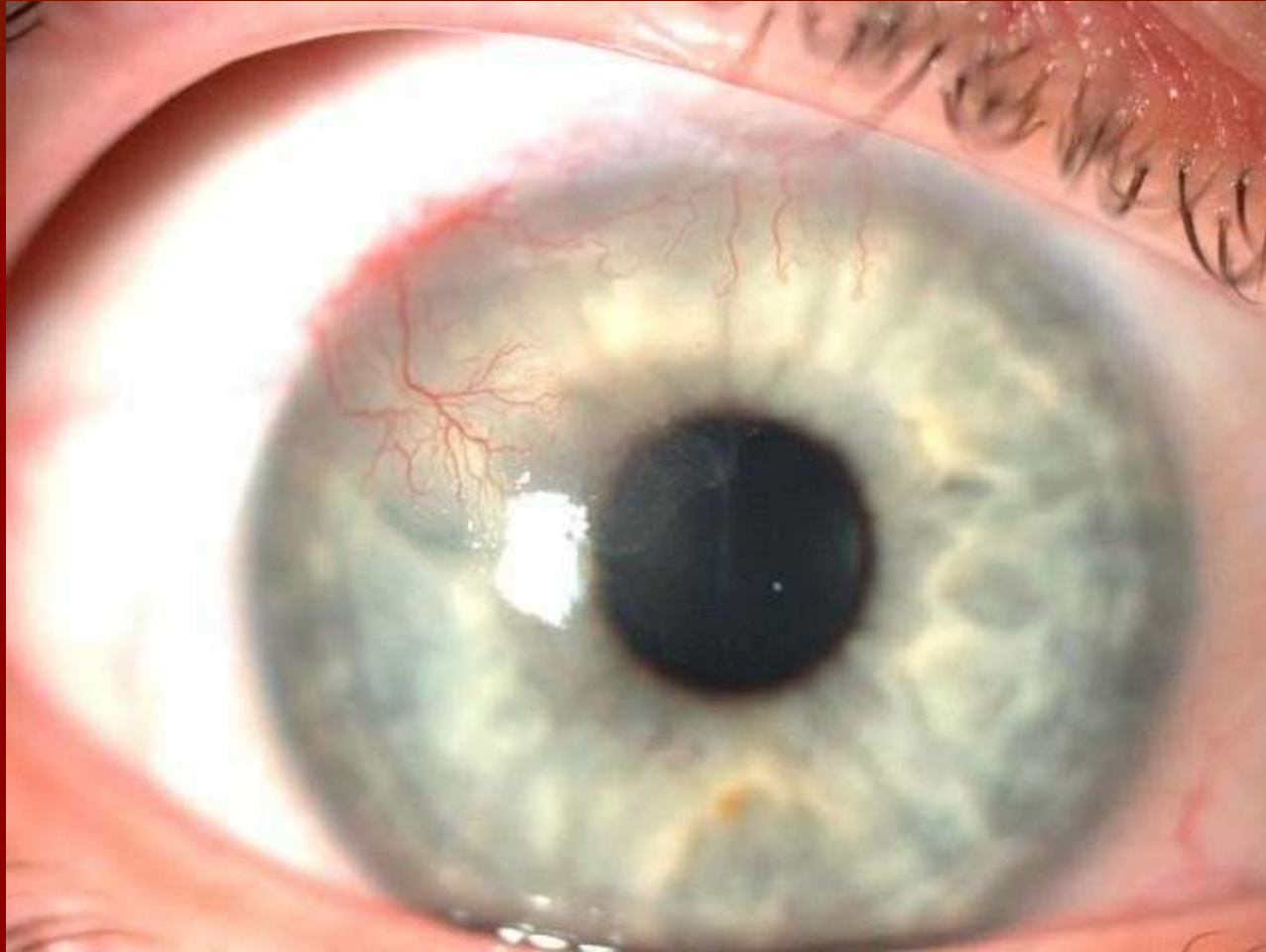
Post Therapy



Post Therapy

- VA OD 20/40+ OS 20/20
- Superficial vascularization of superior cornea
OD with subepithelial haze and no lissamine
green staining of cornea

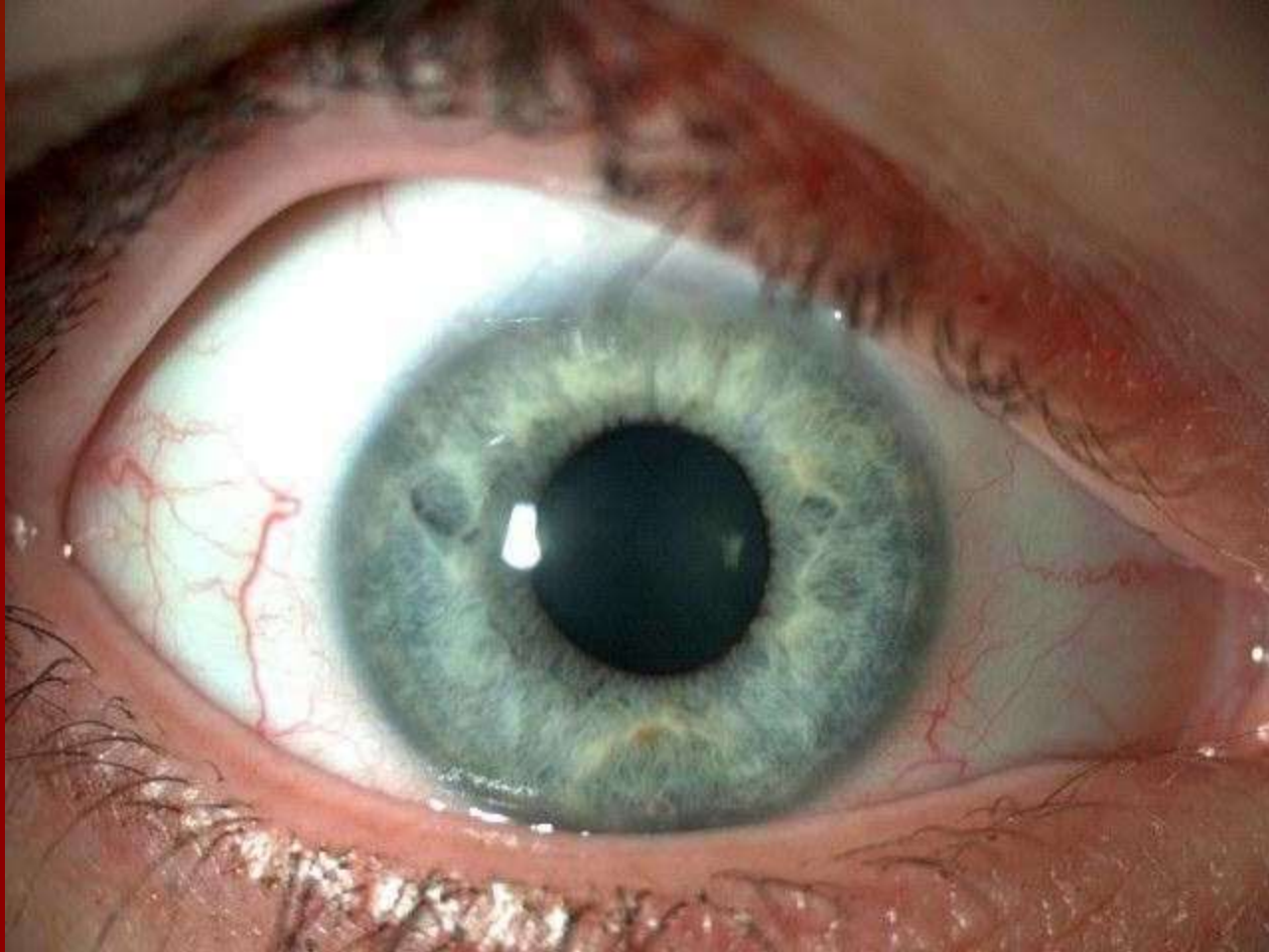
1 year follow up



Treatment

- Patient restarted on MMC 0.04% OD QID for 3 weeks.
- Then excision was performed.
- Pathology: CIN.
- Patient followed annually.

Four year follow up



Four year follow up

- Vision 20/25 OD
- No recurrence of CIN

CIN

- Dysplasia of the ocular surface epithelium that has not yet invaded the substantia propria of the conjunctiva or Bowman layer of the cornea.
- CIN has traditionally been found at the limbus in elderly individuals.
- Symptoms range from none at all to severe pain and visual loss; however, it commonly present with red eye and ocular irritation.

CIN

- Annual follow up for life is recommended because slow growth of recurrent lesions and the potential for malignant spread.

CIN

- Diagnosis is by histopathology
- The main causes and associations:
 - Sun exposure and distance from the equator
 - Human papillomavirus (HPV) infection
 - Increased p53 expression
 - HIV seropositivity

CIN Treatment

- Excision and cryotherapy.
- Topical medical therapies such as mitomycin C (MMC), 5-fluorouracil (5-FU), and interferon alfa 2b have also been used.

CIN Treatment

- MMC has been used as a both a primary treatment and an adjunct to other treatments.
- MMC is effective in the majority of cases.
- Complications of MMC such as ocular irritation, conjunctival hyperaemia, and punctate keratopathy.

Complications of Mitomycin C

- 100 eyes in 91 patients
- 0.04% solution applied topically qid in one to three cycles of 7 days each.
- Results:
 - 34% developed allergic reaction
 - 14% had epiphora secondary to punctal stenosis at mean followup of 26.5 months
 - No serious complications

Khong and Muecke. BJO 2006 90:819-822

References

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- C A Gupta, J Mueckel. Treatment of ocular surface squamous neoplasia with Mitomycin. *Br J Ophthalmol* 2010;94:555e558.
- Khong JJ, Muecke J. Complications of MMC therapy in 100 eyes with ocular surface neoplasia. *Br J Ophthalmol*. 2006 Jul;90(7):819-22.

■ Thank You