"TALES FROM THE LANE"

CASES THAT MAKE YOU SAY"WHAT"?"

MARC R BLOOMENSTEIN, OD, FAAO

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DISCLOSURE

- PRESENTER IS ON SPEAKERS PANEL/ADVISOR OF ALCON, ALLERGAN, JJ, BAUSCH + LOMB, TEAR LAB, OCUSOFT, KALA, BRUDER, REICHERT, EYEVANCE, NOVARTIS, VISUS, TARSUS, AZURA, AERIE, SIGHT SCIENCES
- OCCRS-PAST PRESIDENT
- PRESENTER HAS NO FINANCIAL INTEREST IN ANY PRODUCTS MENTIONED
- EXCEPT HE DOES HAVE STOCK IN A CERTAIN COFFEE COMPANY…

2

CASES…YOU READY???

3

MY LIFE!

- 67 YEAR OLD MALE
- -2.50 +1.75 X 065 20/20 OS
  - PREVIOUS HISTORY OF CATARACT SURGERY
  - LEFT WITH UNDESIRABLE ASTIGMATISM
- CONSIDER PRK
  - PRE-OP EVALUATION

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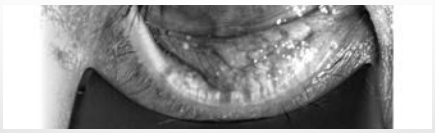
LID STRUCTURE-LIPIVIEW



OS

A Lipiflow treatment was scheduled and patient treated prior to PRK

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MORE SURPRISES!

- 1-DAY POST-OP
  - VA 20/80 WITH BCL
  - TREATMENT
    - BCL
    - PRED FORTE QID/GATIFLOXACIN QID/PROLENSA QD/RESTASIS BID/TEARS..

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PAINFUL AND RED SO…

- 1 WEEK POST-OP
  - PATIENT COMPLAINS THAT VISION IS WORSE
  - TEARFUL AND RED
  - CONTINUES TO USE DROPS…
- WHAT I EXPECT:

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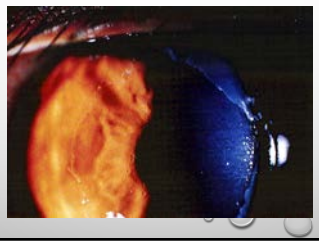
Less than 24 hours post operative PRK

~15% healed



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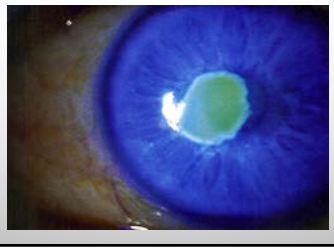
72 hours post operative PRK

~70-80% healed



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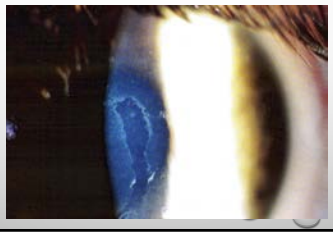
4 days post operative PRK –

90% healed



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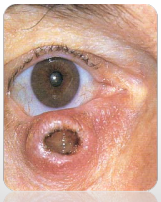
NEVER GONNA GIVE YOU UP..



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SO LET'S TALK ABOUT NEOPLASMS…

BUT DON'T FORGET OUR PATIENT…..

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Eyelid Neoplasms

- MAY ARISE FROM EPIDERMIS, DERMIS OR EYELID ADNEXAL STRUCTURES
  - KERATINIZING EPIDERMIS
  - PROMINENCE OF SEBACEOUS GLANDS AND BLOOD VESSELS
- EPIDERMAL ORIGIN MOST COMMON
- MAIN GOAL: IDENTIFY AND DIAGNOSE MALIGNANCY

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Benign or Malignant?

- MOST PERIOCULAR EPITHELIAL LESIONS NON-MALIGNANT
- CLINICAL JUDGMENT < 100% ACCURATE
- WHENEVER IN DOUBT -> BIOPSY:
  - ABSOLUTELY NECESSARY FOR THE DEFINITIVE DX

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Clinical Evaluation: History

- HX PRIOR CANCER
- SUN EXPOSURE
- PAST RADIATION
- SMOKING
- SKIN TYPE

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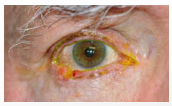
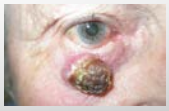
Clinical Signs

- SLOW PAINLESS GROWTH
- ULCERATION, BLEEDING, CRUSTING
- IRREGULAR PIGMENTARY CHANGES
- DESTRUCTION OF NORMAL ARCHITECTURE
  - LASH LOSS, MEIBOMIAN ORIFICES
- PEARLY EDGE, CENTRAL ULCERATION
- TELANGECTASIA
- LOSS OF CUTANEOUS WRINKLES





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Other Clinical Signs

- PALPABLE INDURATION: INFILTRATION INTO DERMIS, SUBCUTANEOUS TISSUE
- LESIONS NEAR PUNCTUM: POSSIBLE LACRIMAL INVASION
- FIXATION TO DEEPER TISSUES/BONE
- LYMPH NODES
- RESTRICTED EOM, PROPTOSIS: ORBITAL INVASION

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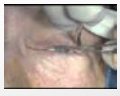
FINAL & DEFINITIVE DIAGNOSIS

BIOPSY

- Incisional – when we suspect a malignant lesion
  - Shave Bx
  - Punch Bx



- Excisional - ideal when we suspect a benign lesion
  - Margins are not checked

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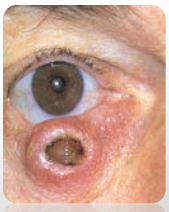
Keratoacanthoma

- SELF-HEALING CARCINOMA
  - PSEUDO CARCINOMA
  - RAPID ENLARGEMENT
    - DIFFERENT THAN SCC
- SUN DAMAGE MAY LEAD TO THIS
  - PREDOMINANTLY IN ELDERLY PATIENTS >45 Y.O.
- STARTS AS PIMPLE OR BOIL
- M>F
- INVOLUTES SPONTANEOUSLY
  - EXCISION OFTEN PERFORMED



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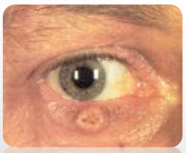
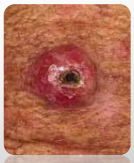
Keratoacanthoma





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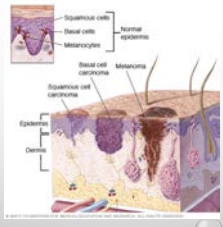
BASAL CELL CARCINOMA (BCC)



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BASAL CELL CARCINOMA (BCC)

- 90-95% OF EYELID MALIGNANCIES
- MOST COMMON MALIGNANT TUMOR OF THE EYES
- ARISE FROM HAIR-BEARING SKIN
- CYSTIC TYPE RESEMBLE A BENIGN INCLUSION CYST
  - FIBROSING DIFFICULT TO DX
    - LIE BENEATH AND LOSE LASHES
    - ENTROPIAN/ECTROPIAN
    - LID NOTCH/RETRACTION/CHALAZIA
    - CHRONIC BLEPHARITIS

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BASAL CELL CARCINOMA (BCC)

- LOCATION
  - LL: 50-60%
  - MC: 25-30%
  - UL: 15%
  - LC: 5%
- HX: FAIR SKIN, SUN EXPOSURE, SMOKING, PRIOR BCC
- FORMS: NODULAR, MORPHEAFORM
- RARELY METASTASIZE
  - RECURRENT OR NEGLECTED MAY INVADE ORBIT AND NEED EXENTERATION

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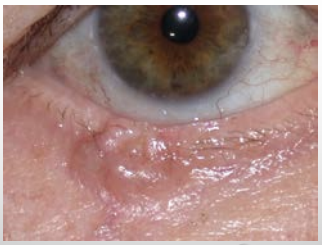
NODULAR BCC



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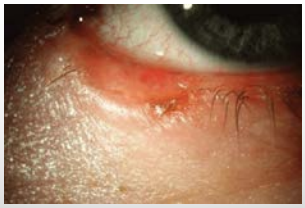
INFILTRATIVE BCC



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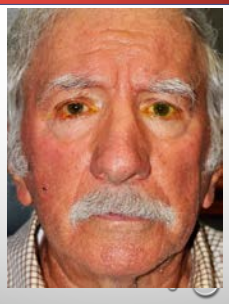
CLINICAL CASE



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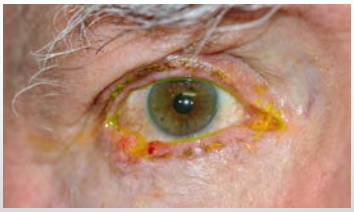
ULCERATED LID MARGIN LESION



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AFTER EXCISION

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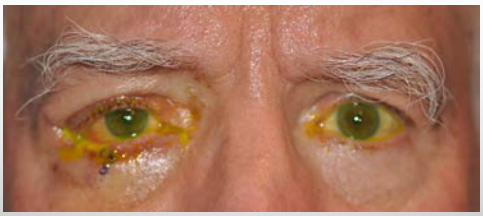
2 DAYS PO



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2 MO PO

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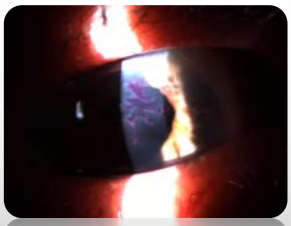
THIS AIN'T NO DISCO..



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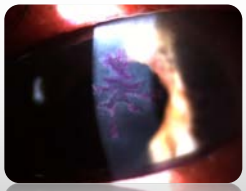
THIS AIN'T NO FOOLING AROUND…



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MORE SURPRISES

- VASC 20/100; PH NI
- STARTED ZIRGAN Q5X'S DAY
  - CONSIDERED AN AMNIOTIC MEMBRANE
  - REMARKABLE HEALING
- D/C STEROIDS
- CONTINUE NSAID
- ARTIFICIAL TEARS

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MORE SURPRISES

- AFTER 3 WEEKS THE CORNEA HEALED
  - NO SCARRING
  - NO HAZE
  - JUST 20/100 VASC!
    - NOW WHAT!??

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RULE OUT ABNORMAL

- POST PRK
  - CHECK TOPOGRAPHY
- POST CATARACT
  - 5 C'S!
    - CORRECTION
    - CORNEAL SURFACE
    - CAPSULE
    - CENTRATION
    - CME

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SO WHAT NOW?

- CORRECTION
  - -0.25 +0.50 X090 20/100
- CORNEAL SURFACE
  - MILD STAINING, TEAR MINISCUS LOW, OSMOLARITY: 290
- CAPSULE
  - OPEN
- CENTRATION
  - CENTERED

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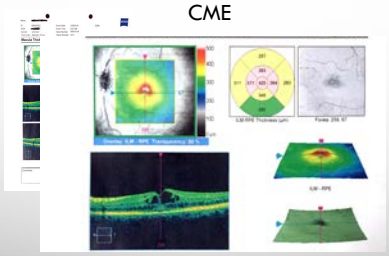
CME



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HOLIDAY AT HOLIDAY INN

MAY I HAVE SOME MORE PLEASE?

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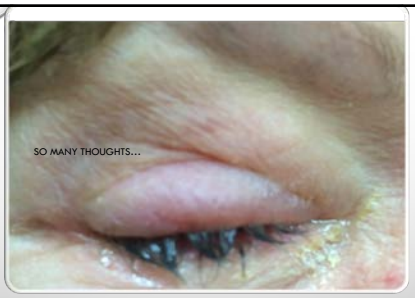

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DIFFERENTIAL

- ALLERGIC CONJUNCTIVITIS
- BUG BITE
- BACTERIAL CONJUNCTIVITIS
- VIRAL CONJUNCTIVITIS
- PRESEPTAL CELLULITIS
- CELLULITIS
- CORNEAL ULCER
- FOREIGN BODY
- HOT TUB
- TRAUMA

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3 TYPES OF EYE BURNS

- ALKALI BURNS: THESE BURNS INVOLVE HIGH PH CHEMICALS, AND THUS ARE THE MOST DANGEROUS. THEY ARE POWERFUL ENOUGH TO PENETRATE THE EYE, AND CAUSE DAMAGE TO ITS VITAL INNER COMPONENTS. IN THE WORST CASES, THEY CAN LEAD TO CONDITIONS LIKE CATARACTS AND GLAUCOMA AND MAY CAUSE VISION LOSS OR BLINDNESS.
- ACID BURNS: LOWER PH BURNS THAT ARE LESS SERIOUS THAN ALKALI BURNS, BUT STILL DANGEROUS. THESE BURNS ARE UNABLE TO PENETRATE THE EYE, BUT STILL MAY CAUSE SIGNIFICANT DAMAGE TO THE CORNEA, WITH THE POTENTIAL TO CAUSE VISION LOSS.
- IRRITATIONS: THESE BURNS ARE NEUTRAL IN PH

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SYMPTOMS OF CHEMICAL BURNS

- EYE REDNESS
- EYE IRRITATION
- EYE PAIN
- SWELLING OF THE EYE
- BLURRED VISION
- INABILITY TO OPEN THE EYE
- FEELING OF FOREIGN OBJECTS IN THE EYE

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TELEPHONE TRIAGE TIPS

- IRRIGATION PROCESS BEGINS ON SITE BEFORE THE PATIENT SEEKS CARE.
- USE SHOWER OR HOSE IF OUTSIDE WORK PLACE
- ATTEMPT TO DETERMINE THE TYPE OF CHEMICAL THAT ENTERED THE EYE(S).
- ATTEMPT TO DETERMINE IF THE PATIENT IS WEARING CONTACT LENSES. IRRIGATION SHOULD NOT STOP IN AN EFFORT TO REMOVE CONTACT LENSES.
- A MINIMUM OF 20 TO 30 MINUTES BEFORE THE PATIENT IS BROUGHT TO THE OFFICE.
- WHEN THE PATIENT IS READY TO MAKE THE TRIP TO THE ER OR OFFICE, REMIND THEM TO BRING THE CONTAINER THAT HELD THE OFFENDING CHEMICAL. IMPORTANT INFORMATION MAY BE OBTAINED FROM THE LABELING.
- IF THE INJURY OCCURRED IN THE WORKPLACE, ASK THE PATIENT TO BRING THE MSDS (MATERIAL SAFETY DATA SHEET) IF AVAILABLE.
- IF THE INJURY OCCURRED WHERE THERE IS NO OR LIMITED ACCESS TO WATER FOR IRRIGATION, REFER THEM TO THE NEAREST EMERGENCY ROOM OR YOUR OFFICE, WHICHEVER IS CLOSER.
- ASSIST WITH DISPATCHING EMERGENCY SERVICES AS NEEDED.

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TREATMENT

- ASSESS THE CORNEA AND CONJUNCTIVA
  - CORNEA INTACT-MILD SPK
    - PROPHYLACTIC ANTIBIOTIC
    - TOPICAL STEROID (LOTEMAX GEL)
    - PRESERVATIVE FREE TEARS
    - CYCLOPLEGE FOR PAIN
  - CORNEA HAZE/NECROTIC
    - ALL THE ABOVE
    - CONSIDER DEBRIDMENT
    - SODIUM ASCORBATE DROPS (10%) Q1H WHILE AWAKE
    - VITAMIN C-1000MG/DAY
    - PROKERA

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NOT THIS…

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WHEN IT RAINS

- 67 YEAR OLD WM
- "MY VISION IS NOT GOOD…I HAVE BLURRED VISION. MY EYES CRY A LOT TOO. THEY CRY ALL THE TIME."
- +NIDDM (DIET CONTROLLED 15 YEARS)
- NKMA
- HISTORY OF SKIN LESION REMOVED FROM CHEEK

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WHEN IT RAINS

- VACC
  - 20/70 (PH-20/30) OD
  - 20/70 (PH-20/70) OS
- SLEX:
  - LIDS: 1+ INSPISSATED GLANDS/TURBID EXPRESSION
    - OS-ATROPHY NOTED
  - 2+ NSC/TR PSC-OD
  - 1 ACC/ 2+NSC/2+ PSC-OS

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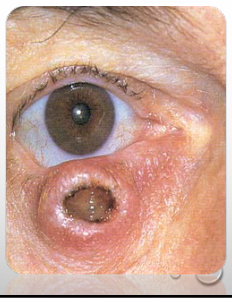
MY PATIENTS EYE(S)



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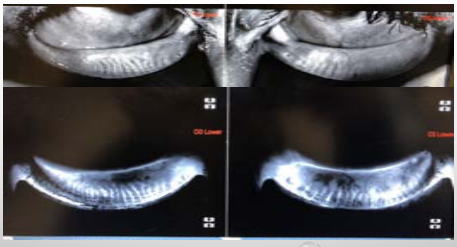
LIPISCAN



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PRE-OP

- PATIENT ADVISED ABOUT LIDS
  - "SEE IT TREAT IT!"
  - LIPIFLOW PROCEDURE PERFORMED
- SCHEDULED FOR CATARACT SURGERY
  - OD THEN OS
    - UNCOMPLICATED OD SURGERY
    - 1 WEEK POST-OP 20/25

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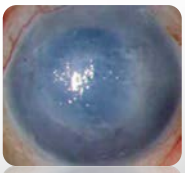
CATARACT SURGERY OS

- 1-DAY
  - VASC: CF
  - 2-3+ STRIAE
  - 3+ POME
  - 1-2+ CELLS (TOUGH VIEW)
  - LENS CENTERED
  - IOP-ORA
    - 34 MMHG IOPCC
- DIAMOX PROVIDED, COSOPT BID, CPM
  - 2 DAY F/U: CF WITH 22 IOPCC



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5DAY POSTOP

- VASC
  - CF "SEEMS CLEARER"
- SLEX:
  - CORNEA: TR EDEMA
  - A/C: 1+CELLS WITH INCREASED FLARE AND DEPOSITS IN THE ANTERIOR CHAMBER.
  - IRIS –ROUND WITH VITREOUS PROLAPSE
  - LENS: ?
  - 28 IOP CC

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SOMETHING IS NOT RIGHT?

- CF VISION
- INCREASED IOP
- CORNEAL EDEMA
- COMPLICATED SURGERY WITH PSC ADHERENCE TO CAPSULE
  - OPEN CAPSULE

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WHAT TO LOOK FOR?

- IN A RETROSPECTIVE STUDY IN AJO 2016:
  - PERSISTENT IRITIS
  - INCREASED IOP
  - CORNEAL EDEMA
    - RETAINED LENS MATERIAL
  - STUDY CONCLUDED THAT DELAY IN CATARACT DIAGNOSIS WAS THE MOST COMMON FACTOR

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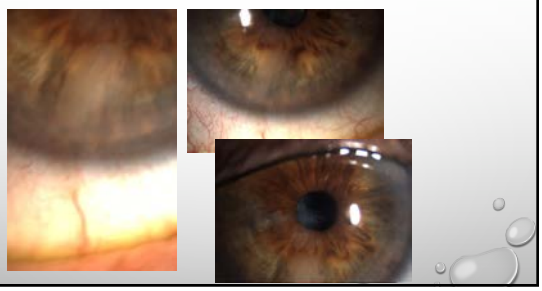
RETAINED NUCLEUS



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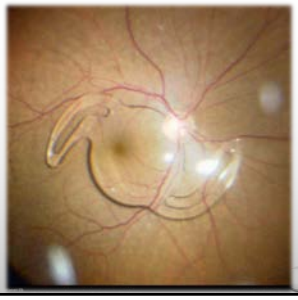
BUT WHY CF?



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CASE ON DECK….

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BATTER UP!-LET'S GO WSC DODGERS (2021!)

- 20-YEAR-OLD COLLEGIATE BASEBALL PLAYER WAS HIT IN THE RIGHT EYE WHEN THE BALL WAS DEFLECTED OFF THE BAT.
- THE ATHLETE BLED FROM THE NOSE, AND THE RIGHT EYE SWELLED SHUT FROM EYELID EDEMA.
- INITIAL NASAL HEMORRHAGE WAS CONTROLLED

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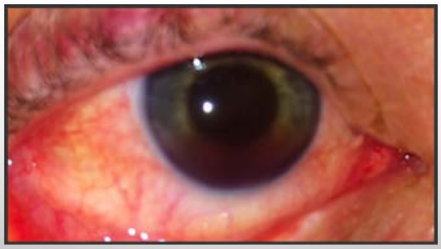
PATIENT PRESENTS TO YOU…



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HYPHEMA

- ***MICROHYPHEMA*** IS THE TERM USED WHEN RBCS ARE IN THE ANTERIOR CHAMBER BUT HAVEN'T SETTLED INFERIORLY
- ***HYPHEMA*** IS THE NAME GIVEN ONCE BLOOD SETTLES INFERIORLY IN THE ANTERIOR CHAMBER
- MOST COMMONLY THE RESULT OF BLUNT TRAUMA TO THE GLOBE
  - FORCE CAUSES BLOOD VESSELS OF THE IRIS OR CILIARY BODY TO BREAK

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TRAUMATIC HYPHEMA

- CHECK PERIORBITAL AREA AND GLOBE FOR INJURIES
  - VISION, ANTERIOR CHAMBER DEPTH, SEIDEL'S SIGN, IOP, BROKEN FACIAL BONES, EOMS, APD, LENS, IRIS, RETINA, ETC.
  - MAY NEED CT OF ORBIT/FACE, B-SCAN, RETINAL CONSULT
- ANY SIGN OF AN OPEN GLOBE IS AN EMERGENCY REQUIRING PLACEMENT OF SHIELD AND IMMEDIATE REFERRAL

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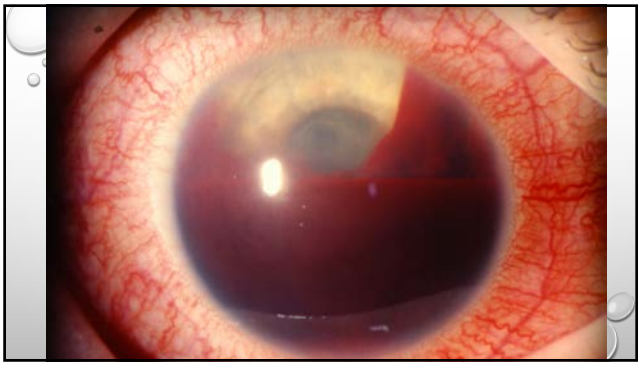

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HYPHEMA MANAGEMENT

- WATCH DAILY UNTIL RESOLVED/CONTROLLED
- START STEROID Q2H TO QID
- HOMATROPINE/CYCLOGEL BID TO TID
- CONTROL IOP IF ELEVATED TO AVOID CORNEAL BLOOD STAINING
  - LARGER HYPHEMA = LARGER RISK OF INCREASED IOP
  - USE BRIMONIDINE, BETA-BLOCKERS FIRST-LINE
  - AVOID CAIS IF RISK/KNOWN SICKLE CELL
  - AVOID PROSTAGLANDINS WHEN POSSIBLE

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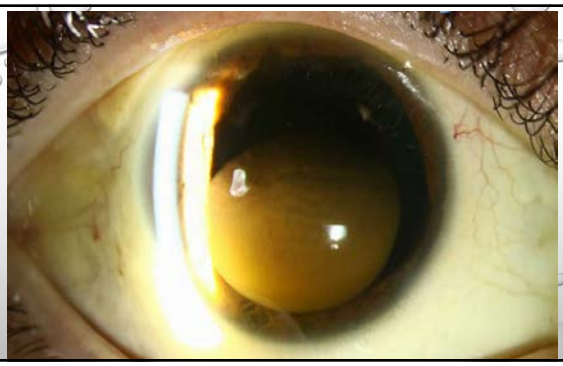

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HYPHEMA MANAGEMENT

- CONSIDER REFERRAL IF:
  - UNABLE TO CONTROL IOP
  - CORNEAL BLOOD STAINING DEVELOPS
  - CONTINUED BLEEDING WITHOUT CLOTTING
  - SICKLE CELL PATIENT
  - SPONTANEOUS HYPHEMA OF UNKNOWN ETIOLOGY
- SURGICAL TREATMENT
  - ANTERIOR CHAMBER WASHOUT MOST COMMON
  - PARACENTESIS FOR IOP CONTROL
  - TRABECULECTOMY WITH AC WASHOUT
  - YAG PI IF PUPILLARY BLOCK DEVELOPS

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HYPHEMA COUNSELING

- COUNSELING
  - LIMIT ACTIVITIES
  - HIGHEST RISK OF REBLEED IN FIRST 5 DAYS
  - KEEP HEAD OF BED ELEVATED
  - NO ASA/IB PRODUCTS/BLOOD THINNERS IF POSSIBLE
  - LONG-TERM GLAUCOMA RISK (75% WILL HAVE ANGLE RECESSION)
    - GONIOSCOPY 3-6 WEEK POST-RESOLUTION
    - BASELINE VF

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POST-SURGICAL HYPHEMA

- POST-PERIPHERAL IRIDOTOMY
- FOLLOWING CATARACT SURGERY
  - MIGS
  - FUCHS HETEROCHROMIC IRIDOCYCLITIS (FHI)
- UGH SYNDROME
  - UVEITIS-GLAUCOMA-HYPHEMA SYNDROME
  - HISTORY OF ACIOL OR POORLY POSITIONED PCIOL

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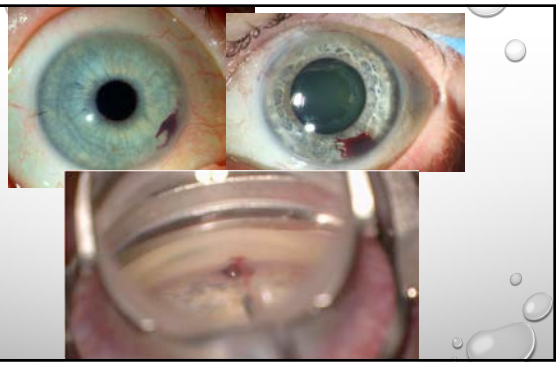

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SPONTANEOUS HYPHEMA

- NEOVASCULARIZATION OF THE IRIS
  - PDR/OCULAR ISCHEMIC SYNDROME (OIS)
- SICKLE CELL DISEASE AND SICKLE CELL TRAIT
- OCULAR MELANOMA/RETINOBLASTOMA
- HERPETIC UVEITIS/FHI
- LEUKEMIA/HEMOPHILIA
- ANTICOAGULANT USE
- OTHERS

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DON'T BE SURPRISED!

- OCCAM'S RAZOR
- MÖBIUS STRIP
- MANAGE THE DISEASE AT HAND

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THANK YOU

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