“Not sight threatening, but potentially life-threatening”
A 60-year-old male presents with a chief complaint of unilateral lid swelling and tenderness. The leading differential diagnoses are preseptal cellulitis and orbital cellulitis. Acquired anophthalmia of the affected side complicates the differentiation.

Case Report Outline:
I. Case Hx
   a. Demographics: 60 YO Caucasian male
   b. CC: lid swelling, tenderness, mild irritation of R eyelid for past two days
   c. Pt history:
      i. Ocular hx: anophthalmia OD, S/P enucleation in 1979 following trauma and secondary glaucoma
      ii. Medical hx: Hyperlipidemia, obesity, spinal stenosis, cervical radiculopathy, asbestosis, sinusitis of L maxilla
   d. Medications:
      i. Flunisolide (allergy)
      ii. Docusate (stool softener)
      iii. Albuterol (asthma)
      iv. Loratadine (allergy)
      v. Niacin (hyperlipidemia)
      vi. Morphine (back pain)
II. Pertinent findings
   a. Clinical:
      i. Due to anophthalmia OD, unable to assess for APD, exophthalmos, diplopia, decreased visual acuity, ophthalmoplegia, or pain with eye movement to differentiate preseptal cellulitis from orbital cellulitis
   b. Physical
      i. Erythema, firm edema of R eyelid with mucous discharge
      ii. No fever
   c. Laboratory studies
      i. Recent CBC WNL, thyroid panel WNL
      ii. Consider lumbar puncture if meningitis is suspected
   d. Radiology studies
      i. Recent CT indicating L maxillary sinusitis
      ii. Consider axial/coronal head & orbit CT with orbital cellulitis suspicion
      iii. Consider orbital ultrasound
III. Differential diagnosis
   a. Primary: preseptal cellulitis
      i. Most likely due to antecedent conjunctivitis and concurrent chronic sinusitis, no fever and only mild irritation experienced
b. Other differentials:
   i. Orbital cellulitis
      1. Included due to erythema & edema
      2. Best ruled out with imaging. Unable to assess for APD, exophthalmos, diplopia, decreased visual acuity, ophthalmoplegia, or pain with eye movement
   ii. Allergic reaction
      1. Included due to erythema & edema
      2. Excluded because edema would feel soft and non-tender with allergy, non-pruritic unilateral nature of presentation
   iii. Dysthyroid exophthalmos
      1. Included due to edema
      2. Excluded due to normal thyroid levels in this patient, would not present with erythema
   iv. Orbital tumor
      1. Included due to edema
      2. Best ruled out with imaging
   v. Orbital pseudotumor
      1. Included due to edema
      2. Best ruled out with imaging, enlarged EOMs would be evident on CT
   vi. Pott’s Puffy Tumor
      1. Included due to edema & sinusitis
      2. Best ruled out with imaging

IV. Diagnosis and discussion
   a. Preseptal cellulitis was diagnosed after consultation with attending ophthalmologist. She felt confident in the preseptal nature of the inflammation and did not feel that imaging was indicated unless the patient did not improve with oral antibiotic therapy. The patient was closely followed after the diagnosis for signs of improvement. Potentially fatal complications of orbital cellulitis warrant close follow-up and possible hospitalization, especially for children with suspected orbital cellulitis.
   b. Expound on unique features
      i. Difficult differentiation of preseptal vs. orbital cellulitis due to lack of ocular signs.
      ii. No risk of vision loss due to anophthalmia, but serious possible complications of orbital cellulitis if inflammation extends beyond orbital septum
      iii. Orbital cellulitis complications include orbital or subperiosteal abscess, cavernous sinus thrombosis, intracranial infection, sepsis, and death. In other patients, there is a risk of blindness.

V. Treatment, Management
   a. Augmentin (Amoxicillin/Clavulanate) 875/125 bid x 10 days
   b. Excellent response to medication, immediate improvement and complete resolution of signs and symptoms at follow-up appointment.
c. Consider imaging studies/repeat imaging if patient does not improve with treatment. Follow-up every 24h until resolution of inflammation.

d. Bibliography, literature review:

VI. Conclusion

   a. Clinical pearls, take away points:
      i. Consider hospitalization if orbital cellulitis is suspected, or in children
      ii. Close follow up is essential, every 24h until improvement
      iii. Order imaging if orbital cellulitis is suspected or if patient does not improve with treatment