Opportunities to Create Practice Success as learned from a patient with ARN

Course Description

This course will include an interactive discussion of patient cases and conditions that are first diagnosed in the office of the optometrist and then referred to the internist, pediatrician or hospitalist. A general review of the medical condition as it relates to the ocular disease will be presented as well as a review of the ocular condition. This course will help every OD to understand how best to communicate with the internist and other specialists for the best patient outcome and practice success.

Learning Objectives:

1. To review Acute Retinal Necrosis systemic component
2. To review Acute Retinal Necrosis ocular component.
3. To discuss specific challenges in diagnosis and treatment.
4. To highlight challenges that may arise during and best practices in co-managing these patients with their primary care physician or hospitalist

Course Outline:

1. Acute Retinal Necrosis
    a. Subjective History with the Optometrist
        i. History of findings
        ii. Description of symptoms
        iii. Other testing done
        iv. Timing of findings
    b. Objective findings with the Optometrist
        i. Visual Acuity
        ii. Pupils
        iii. Fields
        iv. IOP
        v. Slit lamp exam
        vi. Posterior segment findings
    i. Differential Diagnosis
        1. PORN
        2. Syphilis
        3. Toxoplasmosis
        4. Behcet Disease
        5. Fungal or Bacterial Endophthalmitis
        6. Large Cell Lymphoma
        7. CMV retinitis

B. Ocular Disease Review
    a. ARN is a vision threatening ocular emergency that requires rapid recognition and aggressive antiviral treatment to limit retinal destruction and reduce the risk of bilateral involvement
    b. Not usually caused by chronic systemic disease
    c. Trigger by reactivation of systemic herpes virus infections
    d. Herpes virus prevalence (HSV 1) is 64% of the global population according to WHO
    e. Rare: 0.5 -0.63 cases per million population per year
    f. Prevalence: 1 per 1.6 to 2 million people
    g. Most common in ages 20-60 with no gender bias
    h. Fellow eye involvement in 30-35% of untreated cases
    i. Risk factors:
        i. History of shingles, cold sores, neonatal HSV infection
        ii. Immunosuppression

iii. Triggers such as systemic illness, trauma, stress or surgery can reactivate virus.

C. Diagnosis of Ocular Disease
   a. Clinical appearance
   b. HSV, VZV, occasionally CMV/EBV cause
   c. Symptoms: Sudden Vision loss, floaters, photophobia, ocular pain
   d. Ancillary tests: PCR of aqueous/vitreous for viral DNA

D. Pearls from the Optometrist in each case

E. Subjective History with the Internist
   a. Decreased vision
   b. No systemic findings

F. Objective findings with the Internist
   a. Negative history of immunosuppression
   b. No family history
   c. Normal findings

G. Treatment Disease Review
   a. Systemic antiviral therapy
      i. Acyclovir IV every 8 hours for 7 t 10 days followed by oral therapy (e.g., 800 mg 5x/day for 6 weeks or longer)
      ii. Valacyclovir (often used as oral alternative or step – down): 1-2g PO 3x/day
      iii. Famciclovir: 500 mg PO 3x/day (less common)

      Duration is usually at least 6 weeks, sometimes longer to reduce risk of contralateral involvement.
   b. Corticosteroids: oral prednisone after antivirals initiated
   c. Adjuncts: Aspirin maybe , barrier laser to reduce RD risk
   d. Surery: Pars plana vitrectomy for RD or non-clearing vitreous opacities

H. More Treatment of Systemic Disease
   a. Doctors involved will likely be inpatient
   b. Follow up weekly if not inpatient
   c. High prevalence of fellow eye involvement

I. Prognosis
   a. Guarded visual outcomes
   b. Retinal detachment in 75% of cases
   c. Prompt treatment reduces fellow eye involvement and improves prognosis.