Retinal Findings with Systemic Disease

Author: Jeffry D. Gerson, O.D., F.A.A.O.

Description: With the increase in prevalence of many systemic diseases increasing, so too are the associated retinal findings. This course will discuss some of these systemic conditions and their retinal findings. Attention will be paid to diagnosis and treatment as well as appropriate referrals. Cases will be used to demonstrate actual scenarios.

Goals:

1. Become familiar with some common, and some less common systemic conditions.
2. Discuss prevalence of these conditions and some of the ocular findings that may be associated with them.
3. Discuss how these systemic conditions affect eyes, and in particular retinal pathology.
4. Discuss treatments for retinal conditions associated with systemic diseases.
5. Discuss appropriate referrals for patients, and when referral for the systemic conditions is more important than eye care.
6. Discuss the importance of integration of eyecare into overall patient care.

Outline:

Methods of detection of retinal disease

   Clinical exam

   Advanced technology

      Fundus photography

      Traditional

      Widefield imaging

      Optical Coherence Tomography

Histoplasmosis

   Systemic information

      Causative organism: Histoplasma capsulatum

      Systemic symptoms; rare but possible

      Primarily systemic disease with widespread implications

   Ophthalmic implications
Previously called “POHS” now more correctly called “OHS”

Triad of signs: peripapillary atrophy, disseminated histo spots and macular involvement

Treatment implications and possibilities

- Only treated with CNVM
- Anti-VEGF injections

Diabetes

Systemic information

- Identification of and distinctions between pre-diabetes, type 1 diabetes and type 2 diabetes

Systemic clinical trials pertinent to primary eyecare

- DPP, DCCT, UKPDS
  - Importance of A1c: Quality of life
  - Importance of prevention if already pre-diabetes
  - Importance of good control from disease onset
  - How an OD can discuss these points with patients

Ocular implications beyond retinopathy

Retinopathy

- Important clinical trials: DRS, ETDRS, DCRR.net
- Importance of PRP for proliferative disease
- Role of Anti-VEGF in diabetic eye disease
  - Multiple agents used for CSME, and sometimes DME
    - Evolution of treatment trends over time in regards to modality and timing
- Oral medications-supplements for diabetic eye disease

Retinal complications from hypertension

- Definitions of HTN and stages
- Hypertensive retinopathy
Vascular occlusions

Branch Retinal Vein occlusions
  Ischemic vs non-ischemic and affect on f/u
  Treatments: recent clinical trials
  Timing of treatments: now versus in past
  Referral guidelines and timing

Central Retinal Vein Occlusions
  Criteria to use for follow-up schedule
  CVOS vs more recent clinical trials
    Historical standard treatment for edema
    Current standard for treatment
  Impact of recent treatment protocol changes on OD’s
  Timing of treatments: now versus in past
  Referral guidelines and timing

Use of aspirin policy after vein occlusions

Central Serous
  Retinal appearance and importance of in office testing
  Potential systemic factors being causative: distress, steroids
  Treatments: Observation often adequate, but sometimes laser or AntiVegF
  Patient education and follow-up

Tumors/growths in the eye
  Significance of nevus and odds of conversion to melanoma
    5 factors according to Shields
  Likely site of primary tumors if metastasis to eye
  Sites to which ocular malignancies metastasize
  Choroidal melanoma
Statistics of survival

Treatment modalities and quality of life (COMS)

Drug related toxicities

Plaquenil

Current standards for diagnosis and screening protocols

Instrumentation needed to adequately monitor

Standards of care

Interferon

Canthoxanthin