Ophthalmological Manifestations of Some General Medical Conditions

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RELF EYE ASSOCIATES: DULUTH, MN
External Eye

- Herpes Simplex

- Herpes Zoster
External Eye

- Lymphoma

- Leukemia
Dysthyroid Ophthalmopathy

- Early symptoms
- Late symptoms
Definition

- The autoimmune inflammatory disorder of the orbit associated with a thyroid metabolic abnormality
  - Hyperthyroidism (90%)
  - Euthyroid (6%)
  - Hashimoto’s thyroiditis (3%)
  - Hypothyroidism (1%)
Statistics

- Female:Male 4:1
- Incidence 16/100,000/year in women and 3/100,000 in men
- The most common cause of unilateral and bilateral proptosis in adults
- Eye disease may precede the glandular disease
Pathogenesis

- TSH-R antibodies bind to the orbital fibroblast and preadipocyte causing them to produce hyaluronic acid, glycosaminoglycans, cytokines.

- Activated T and B lymphocytes, plasma cells, mast cells produce other inflammatory mediators (TNF-alpha, IL-1,2, and the interferon).

- The circulating autoimmune may be a marker for disease activity.

- The autoimmune defect is inherited.
Two Phases of the Disease

- **Active inflammatory**
  - EOM’s, orbital fat, skin of lids and brows, SOOF and ROOF all increase in volume
    - Increased vascularity

- **Inactive**
  - Inflammation replaced by fibrosis and scar in two years
Main Clinical Manifestations

1. Soft tissue involvement

2. Eye-Lid Retraction

3. Proptosis
   - Exposure Keratitis
Main Clinical Manifestations

4. Optic Neuropathy
   – follow with visual fields

5. Restrictive Myopathy
Diabetes Mellitus

- Non proliferative diabetic retinopathy
- Proliferative diabetic retinopathy
Background Retinopathy with Macular Edema (CME)
Proliferative Diabetic Retinopathy

- Early proliferative changes
  - Disc proliferation
Proliferative Diabetic Retinopathy

- Early proliferative changes
  - Non-disc proliferation
Proliferative Diabetic Retinopathy

- **Treatment**
  - Focal and PRP laser
  - Anti-veg F drugs
  - Avastine, Lucentis, Steroids
Hypertensive Retinopathy
What is the diagnosis?
Clue....
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