Purtscher Retinopathy: An Eye On Acute Pancreatitis

Case Description

- **ID**
  - 25 year old man with history of alcohol abuse presented with acute necrotizing pancreatitis.

- **HPI**
  - Acute onset of epigastric pain, nausea, vomiting and elevated lipase.
  - Development of pseudocyst, paracolic fluid, pleural effusion, mild pericardial effusion, acute tubular necrosis requiring hemodialysis.

- **ROS**
  - Blurry vision and decreased ability to see faces with onset of abdominal pain.

- **PE**
  - OD 20/160, OS 20/250
  - Dilated fundus exam: cotton wool spots, peripapillary hemorrhages, and mild macular edema

- **Hospital Course**
  - Developed hemorrhagic phlegmon and PEA arrest following blood transfusion.
  - Pancreatitis resolved and discharged after two months hospital stay with continued outpatient hemodialysis.
  - No further documentation regarding vision changes or improvements noted prior to discharge.

Learning Objectives

- Recognize Purtscher Retinopathy as an uncommon complication of acute pancreatitis.
- Understand the epidemiology, pathogenesis, clinical findings and management of Purtscher Retinopathy.

Images

Purtscher Retinopathy: Uncommonly Recognized Complication of Acute Pancreatitis

- Figure 1 and 2: Bilateral dilated fundoscopic exam illustrating cotton wool spots, peripapillary hemorrhages and mild macular edema consistent with Purtscher Retinopathy.

Commonly Recognized Complications of Acute Pancreatitis

- Figure 3: Acute Walled Off Necrotic Fluid Collections
- Figure 4: Hemorrhagic Phlegmon
- Figure 5: CT – Pleural Effusion
- Figure 6: CXR – Pleural Effusion

Discussion

- **Epidemiology**
  - 0.24 persons per 1 million
  - Up to 10 percent of acute pancreatitis

- **Pathogenesis**
  - Complement activation → embolic phenomena → vascular occlusion of retinal arterioles

- **Clinical and Objective findings**
  - Asymptomatic to significant visual loss
  - “Purtscher flecken”, cotton wool spots, retinal hemorrhages or macular edema

- **Management**
  - Supportive approach initially
  - Limited data support IV and then PO steroids

- **Lessons**
  - Recognize and diagnose rare complication associated with pancreatitis
  - Provide counseling for potentially distressing symptom
  - Role for medical treatment if no spontaneous resolution

References