DIABETIC GASTROPARESIS

FLAME LECTURE: 14

LIMSIACO 11.1.18

LEARNING OBJECTIVES

- To understand gastroparesis as a complication of uncontrolled, long-term diabetes
- How to diagnose – clinical features and diagnostic tests
- How to treat – lifestyle changes and medications
- Prerequisites:
  - NONE
- See also – for closely related topics
  - FLAME LECTURE : Diabetes Mellitus

DEFINITION

- Delayed gastric emptying of solids that is not caused by mechanical obstruction
- Gastroparesis may have other etiologies, but is most frequently associated with diabetes mellitus
  - Long-term hyperglycemia (>5 yrs) can further lead to autonomic neuropathy

CLINICAL FEATURES

- Most common symptoms:
  - Nausea (93%)
  - Vomiting (68-84%)
    - N/V more severe in diabetics compared to other patients with gastroparesis
  - Abdominal pain localized to epigastric region (46-90%)
  - Early satiety (60-86%)
- Less common symptoms:
  - Bloating, postpandrial fullness, weight loss

DIAGNOSTIC TESTING

- Scintigraphic gastric emptying **(**most common and affordable)
  - A positive test is >10% gastric retention after 4 hrs or >60% at 2 hrs using a standard low fat, scrambed egg meal
  - The amount of retention at 4 hours can also delineate severity:
    - Mild: 10-15%
    - Moderate: 15-35%
    - Severe: >35%
- Other evaluations can be performed to exclude mechanical causes:
  - CT abdomen
  - Upper Endoscopy

MANAGEMENT

- Replenish fluids, electrolytes, and obtain strict glycemic control
- Symptom control: antiemetics and prokinetics
- Diet modification: frequent, small volume nutrient meals that are low in fat and soluble fiber
- If insufficient PO intake, consider jejunostomy tube feeding (after a trial of nasoenteric tube feeding)
  - Enteral nutrition is indicated if >10% unintentional weight loss during 3-6 months and/or repeated hospitalizations for refractory symptoms

REFERENCES

1. UptoDate. Gastroparesis – Etiology, clinical manifestations, and diagnosis
2. American College of Gastroenterology. Management of Gastroparesis.
3. National Institute of Diabetes and Digestive and Kidney Disease. Gastroparesis.