Diagnostic Delay in Patients with Eosinophilic Gastritis and/or Eosinophilic Duodenitis: A United States Population-Based Study

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**Background**

- Eosinophilic gastritis (EG) and eosinophilic duodenitis (ED) are chronic inflammatory diseases characterized by persistent gastrointestinal symptoms and elevated eosinophils in the stomach and small intestine, respectively.
- There are no standardized diagnostic guidelines, but required steps are esophagogastroduodenoscopy (EGD), collection of biopsies from gastric and duodenal mucosa, and histologic confirmation of tissue eosinophilia.
- The nonspecific clinical presentation of patients with EG and/or ED combined with limited disease awareness and lack of diagnostic guidelines may suggest inadequate endoscopy or undiagnosed disease.
- AIM: Characterize the diagnostic delay and biopsy histopathology utilization in patients with EG and/or ED.

**Methods**

- Retrospective observational study of Symphony Health's proprietary, longitudinal medical and pharmacy claims database (2008-18).
- Age groups defined as ≥18 years (adults), 12 to 17 y (adolescents), and 0 to 11 y (children), based on age at initial symptom presentation.
- Patients included if they had ≥1 claim with code for relevant GI symptom, ≥1 claim with code for EGD, ≥1 claim with ICD-9 code for EG (K52.81), and ≥1 claim with code for relevant GI symptom on index vs repeat (i.e., 2 or more) EGD.

**Results**

- **Patients not diagnosed on index endoscopy endured additional diagnostic delay**
  - In the 1,569 patients not diagnosed on initial EGD, mean months between index EGD and repeat EGD was 18.8 [95% CI: 17.9, 19.7] years.
  - On average, 18.8 years from diagnosis to repeat EGD was observed in adults (22.7 [95% CI: 21.4, 23.9]) vs adolescents (13.3 [95% CI: 10.9, 15.7]) and children (12.2 [95% CI: 10.9, 13.5]) years.
  - **Demographics**
    - 468 (11%) females, 266 (6%) pay/uninsured, and 4,108 ± 24.1 (95% CI: [4,084, 4,133]) mean years from diagnosis to repeat EGD were observed in adults, adolescents, and children, respectively.

**Conclusions**

- Patients with EG and/or ED can have significant gastrointestinal symptoms and delays to diagnosis.
- There is a need for better diagnostic tools and algorithms to enable earlier diagnosis and better clinical outcomes.