**Background**

- Eosinophilic Esophagitis (EoE) is thought to be more prevalent in patients who self-identify as non-Hispanic White.
- The prevalence of EoE may be underreported in racial and ethnic minority populations.
- We investigated the rates of esophageal biopsies in patients presenting with dysphagia, taking race/ethnicity into consideration to understand how clinicians may be differentially evaluating for EoE.

**Methods**

- Retrospective, multicenter study comparing the rate of esophageal biopsy among patients who received an endoscopy and had dysphagia from July to December 2020.
- Chi square analysis comparing the frequency of endoscopic features seen in EoE and the reason why esophageal biopsies were taken among race and ethnicity.
- Multivariable logistic regression model measuring the odds of being biopsied by race/ethnicity, adjusting for number of endoscopies, hospital, gender, age, and endoscopic features of EoE.

**Results**

- N = 602 charts. 628 from the university-based hospital and 174 from the safety-net hospital.
- Rate of Biopsy
  - Non-Hispanic White: 71.3%
  - Black: 54.6%
  - Latinx: 51.9%
- Endoscopic Features of EoE: 81.9%
- Normal Endoscopy: 53.9%
- University Hospital: 71.5%
- Safety-net Hospital: 47.1%
- Logistic regression analysis showed that both Latinx and Black patients were 42% less likely to be biopsied when compared to non-Hispanic White patients.

**Table 1: Regression Analysis Comparing Odds of Esophageal Biopsy Stratified by Race**

<table>
<thead>
<tr>
<th>Race</th>
<th>Odds Ratio for Biopsy (95 Percent Confidence Interval)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latinx</td>
<td>0.58 (0.37, 0.90)</td>
<td>0.039</td>
</tr>
<tr>
<td>Black</td>
<td>0.58 (0.35, 0.96)</td>
<td>0.046</td>
</tr>
<tr>
<td>Age</td>
<td>0.97 (0.96, 0.98)</td>
<td>0.076</td>
</tr>
<tr>
<td>Female Sex</td>
<td>0.86 (0.62, 1.19)</td>
<td>0.303</td>
</tr>
<tr>
<td>Number of EGDs</td>
<td>1.17 (1.04, 1.33)</td>
<td>0.004</td>
</tr>
<tr>
<td>Endoscopic Features of EoE</td>
<td>1.95 (1.40, 2.71)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Safety-net Hospital</td>
<td>0.39 (0.27, 0.58)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*p-values obtained from chi-square analysis

**Table 2: Rate of Biopsy, Endoscopic Features of EoE, EoE as Indication for Biopsy, Patients with EoE Stratified by Race**

<table>
<thead>
<tr>
<th>Group</th>
<th>Rate of Biopsy</th>
<th>Endoscopic Features of EoE</th>
<th>EoE as Indication for Biopsy</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>72% (71.3%)</td>
<td>54% (52.9%)</td>
<td>164 (42.0%)</td>
<td>&gt;0.001</td>
</tr>
<tr>
<td>Latinx</td>
<td>72% (71.3%)</td>
<td>52% (51.5%)</td>
<td>210 (48.9%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Black</td>
<td>72% (71.3%)</td>
<td>46% (45.4%)</td>
<td>133 (31.6%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>N</td>
<td>802</td>
<td>256</td>
<td>256</td>
<td>256</td>
</tr>
</tbody>
</table>

*p-values obtained from chi-square analysis

**Figure 1: Biopsy Rate, EoE as Biopsy Indication, and Endoscopic Features of EoE Stratified by Race**

- Percentage
  - Mexican
  - Mexican-American
  - Native American or Alaska Native
  - Other

- Biopsy as indication:
  - Non-Hispanic White: 72%
  - Latinx: 72%
  - Black: 72%

- Endoscopic Features of EoE:
  - Non-Hispanic White: 52%
  - Latinx: 54%
  - Black: 46%

- EoE as indication:
  - Non-Hispanic White: 164
  - Latinx: 210
  - Black: 133

**Conclusions**

- The rate of esophageal was lower in ethnic and racial minority populations compared to non-Hispanic White patients.
- The rate of esophageal biopsy differed significantly between hospitals.
- Providers documented that esophageal biopsies were taken to investigate EoE more frequently in non-Hispanic White patients.
- EoE was diagnosed more frequently in the university hospital and in non-Hispanic White patients.
- The endoscopic features of EoE were observed more frequently in non-Hispanic White patients.