Prevalence of (EoE) Eosinophilic Esophagitis in Hispanic Children and Young Adults in South Florida

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Introduction

- EoE is a chronic Th-2 mediated disease of eosinophil infiltration of esophageal mucosa which can present with symptoms of dysphagia
- Prevalence rates of EoE among Hispanic/Latino populations from the US and Spain/Latin America are conflicting, with a wide range from 8.7 to 111.9 cases/100,000 people, respectively, with median of 53.4
- Our aim was to study epidemiology of EoE from Allergy/GI clinics in South Florida/Miami area, which has a diverse socioeconomic and multicultural Hispanic population

Methods

5-yr chart review of biopsy proven (>15 eos/hpf) EoE patients who had been referred to Allergy / GI for testing and endoscopy due to chronic symptoms

EoE Patients with Allergy evaluation

- Atopic Comorbidity: 85% (asthma, atopic dermatitis, food allergy, rhinitis)
- Atopic Family History: 66%
- Allergen Sensitization: food 86% and environment 81%



• The Prevalence of EoE in South Florida Hispanics is similar to that of Caucasians

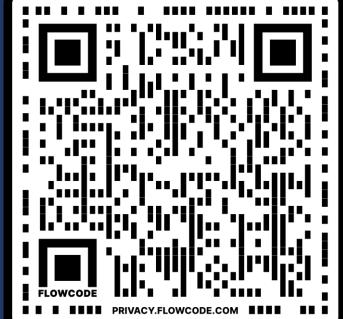
Home zip codes with highest EoE prevalence among Hispanics are among those with the highest median incomes in South Florida

EoE diagnosis was found to be increasing in biopsies of atopic males with abdominal pain and dysphagia

This elevated EoE prevalence among Hispanics is unique in the US literature

Soon IS, et al. Incidence and Prevalence of EoE in Children. *Gastroenterology* 2013; 57(1)72-80. Dellon ES, et al. Epidemiology and Natural History of EoE. *Gastroenterology* 2018;154(2)319-32. McGowan EC, et al. Prevalence and US Geographic Distribution of Pediatric EoE. J Allergy Clin Immunol Pract 2020; 8(8):2796-8. Arias A, et al. Incidence and Prevalence of EoE increase continuously in adults and children in Spain. *Dig Liver Dis* 2019;51:55-62. Navarro P, et al. Growing Incidence and Prevalence of EoE in Children and Adults in Population-based Studies. Aliment Pharmacol Ther 2019;1-10. Conduent Healthy Communities Institute. Miami Matters: Community Dashboard. *Median Household Income*. 2022 Sept; https://www.miamimatters.org

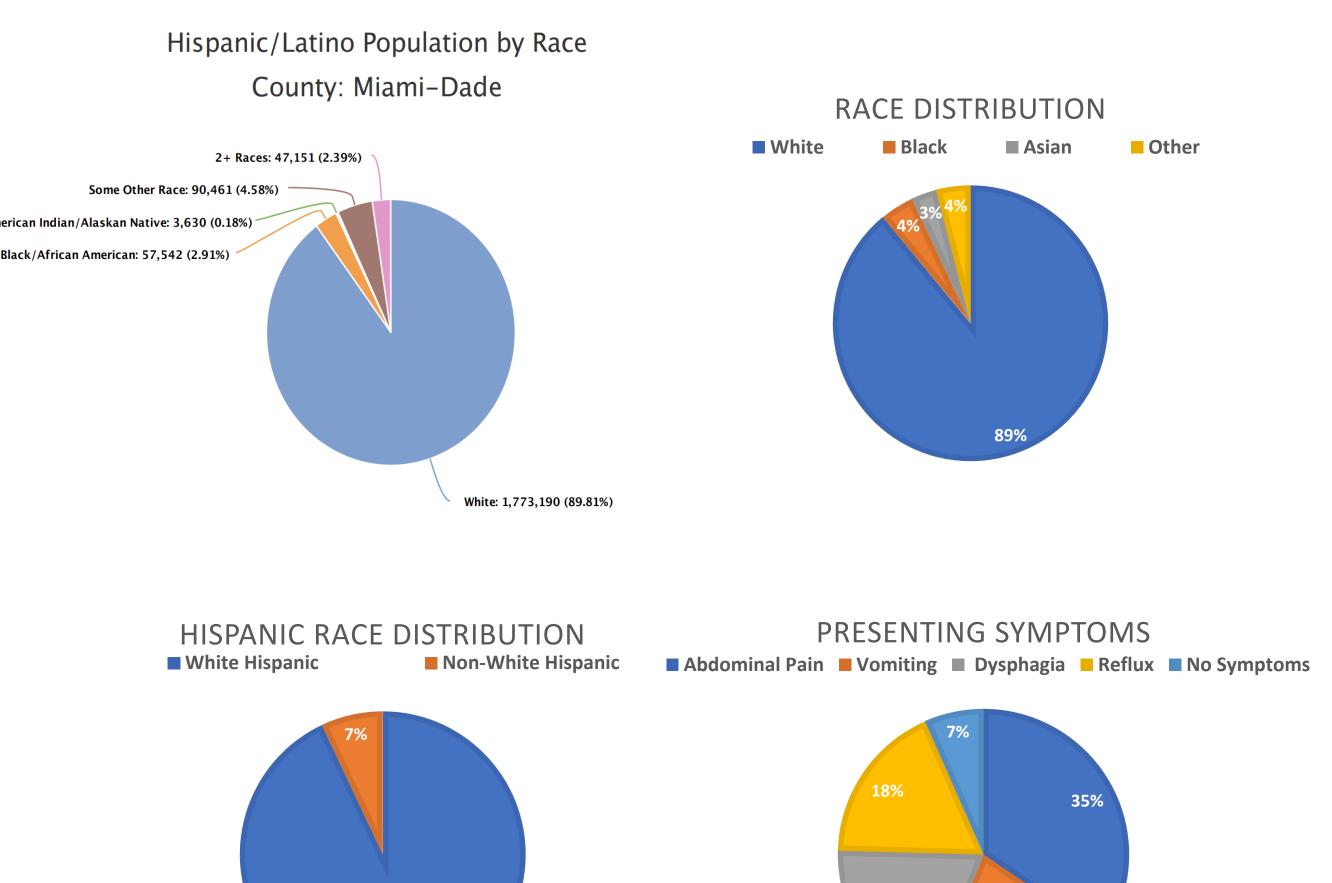
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Study Results

Mean Age: 12+5yrs (3-27yrs) Total Patients: 227 Male/Female: 168/59 (74%) Race: White 203, Black 9, Asian 7, Other 9 Ethnicity: Hispanic 195 (86%) Non-Hispanic 32 (14%)

White Hispanic 181 (93%), Non-White Hispanic 14 Mean Peak Eos biopsy count: 58/hpf (15-320)



EoE Prevalence in Hispanics: 54.4 / 100,000 for age-matched population for 50 Miami zip codes

Insurance coverage: Commercial 55% Medicaid 45%



Mean Time to EoE diagnosis: 21 months PPI Non-Responders: 84% as per patient report Mean Serum Eos count: 433 cells/mcL (62-896) Mean Total IgE count: 243 kU/L (28-540)