

# GASTROENTEROLOGY AND DIGESTIVE DISORDERS

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## Response to proton pump inhibitor therapy in a racially diverse cohort of pediatric eosinophilic esophagitis

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**Background:** Eosinophilic Esophagitis (EoE) is a chronic immunologic disorder characterized by esophageal dysfunction and dense esophageal eosinophilia. The incidence rates are 5.1 and 7 per 100,000 person years in children and adults, respectively. An initial histologic response to proton pump inhibitor has long been viewed as favoring gastroesophageal reflux disease and its use is thus proposed in the diagnostic approach. It is evident from recent literature that PPI therapy has an anti-eosinophil effect, thereby inducing a histologic response independent of GERD status.

**Aim:** Investigate the response to the initial PPI regimen in children with EoE.

**Methods:** We performed a retrospective review of data pertaining to children referred to the multidisciplinary EoE clinic at CNMC. We included children with EoE (peak >15 EOS/HPF at any esophageal level) who underwent a histologic reassessment after 8 weeks of PPI (1-3 mg/kg/day) at CNMC. Histologic response was defined as 5-15 EOS/HPF and remission as <5 EOS/HPF.

**Results:** We reviewed data for 71 children with EoE, age 8 mo-17 yr (6 yr), Caucasian 26 (36.6%) and 43% African Americans (AA) among non-Caucasians. Only 15 children met inclusion criteria comprising of 73% males, 53% non-Caucasians including 33% AA, age range 1-17 year (7.6 year). Histologic remission with minimal symptomatic improvement occurred in only one patient. The pre-PPI and post-PPI therapy peak EOS/HPF were 10-100 (52) and 1-100 (54), p=0.74.

**Conclusions:** We did not observe PPI therapy as sufficient to alter esophageal histologic status favorably in contrast to adults with EoE. To our knowledge, our Pediatric EoE, is the only uniquely non-Caucasian predominant cohort reported to date. The retrospective nature, variable regimens, and absence of formal GERD investigations are limitations of the study. Extending the analysis to additional patients is expected to provide useful insight into PPI effects in EoE.

### Biography

Seema Khan is a pediatric gastroenterologist in Washington, District of Columbia and is affiliated with multiple hospitals in the area, including Children's National Medical Center and MedStar Georgetown University Hospital. She received her medical degree from Aga Khan Medical College and has been in practice for more than 20 years. Dr. Khan accepts several types of health insurance, listed below. She is one of 14 doctors at Children's National Medical Center and one of 14 at MedStar Georgetown University Hospital who specialize in Pediatric Gastroenterology.

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