**INTRODUCTION**

IgG4 has structural properties that promote immune tolerance, and is often elevated in atopic individuals in setting of clinical tolerance. We hypothesized that IgG4 would similarly be enriched in eosinophilic gastritis (EoG) and duodenitis (EoD), and sought to:

1. Determine the presence, amount, and distribution of IgG4 in the gastrointestinal tissue of children with EoG and EoD using immunohistochemistry (IHC).
2. Compare IgG4 IHC in pediatric EoG, EoD, and age-balanced controls.
4. Explore the association between tissue IgG4+ cell count and peak eosinophil count.

**METHODS**

Subjects: n=45 pediatric patients cared for at CHCO between April 2012-2021

EoG: 30 eos/hpf in stomach + clinical symptoms

EoD: 50 eos/hpf in duodenum + clinical symptoms

Controls: normal histology + clinical symptoms, age-matched

Clinical symptoms: dysphagia, vomiting, diarrhea, feeding difficulty, weight issues, anemia, hypoalbuminemia

Exclusion criteria: steroid exposure, other inflammatory GI condition or condition associated with eosinophilia

**CONCLUSIONS**

Tissue IgG4+ plasma cells are a shared histopathologic feature in pediatric EoE, EoG, and EoD.

IgG4+ plasma cells positively correlate with tissue eosinophils and track with disease activity.

**REFERENCES**


