

*Srivastava N.***EOSINOPHILIC ESOPHAGITIS IN ADULTS AND CHILDREN*****Tutor: senior lecturer Pisarik D.M.****2<sup>nd</sup> Department of Pediatrics**Belarusian State Medical University, Minsk*

**Introduction.** First identified in children, there is a growing number of cases of eosinophilic esophagitis (EoE) being reported in adults. It is still not discovered whether EoE that develops in adults is distinct from the one childhood, or if both are just different manifestations of the same pathology. Very few of the researches have explored possible deviation in the pathology in two different age groups.

**Aim:** to examine and establish differences in EoE in children and adults based on various groups in order to do it in the better way.

**Materials and methods.** Retrospective analysis was performed using 15 pediatric cases of the Gastroenterology department at Minsk State Children Clinical Hospital No. 3. An analysis of the literature on the adult cases of EoE was carried out, including the Pubmed and Uptodate databases.

**Results and discussion.** EoE is an inflammatory pathology of the esophagus caused by the infiltration of eosinophils. But there are some differences between pediatric EoE and that of adult EoE such as typical clinical presentation of pediatric cases are nausea, anorexia, chest pain and refractory reflux but in adults we only see complaints of dysphasia and food impaction, diagnostic delay in pediatrics case are short but in adults it is long, allergic predisposition in children is of food allergy predominance but in adults we see airway allergy predominance typically preceding EoE, response to elimination diet depicts efficacy in children but shows no clinically proven trends in adults and in endoscopy we can see mucosal pallor (edema), linear furrows and exudates in children with EoE but we see eosophageal rings and strictures in adult cases. Despite all this, we see similarities in both cases: demographics show male predominance, Caucasian predominance, and a high prevalence of atopy; laboratory tests depict elevation in serum total IgE and peripheral eosinophils in a subset of patients; in histopathology, we can see eosinophil predominant inflammation and tissue injury with fibrotic changes in some cases; inflammatory bio-markers that are exhibited are increased tissue expression of T cells, mast cells, IL-5, TNF-alpha, TGF-beta1, IL-13, eotaxin-3, and extracellular matrix protein deposition; and both cases have a high response to topical steroids.

**Conclusion:** while there are distinct differences between pediatric and adult EoE in terms of clinical presentation, diagnostic delay, allergic predisposition, response to treatment, and endoscopic findings, there are also several key similarities. Both pediatric and adult EoE cases exhibit the same demographics, laboratory results, histopathology, inflammatory markers and response for treatment. These similarities suggest common underlying mechanisms in the pathogenesis of EoE across different age groups. Further research is needed to better understand these shared characteristics and improve diagnostic and treatment strategies for EoE patients of all ages.