Eosinophilic Esophagitis (EoE)

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What is Eosinophilic Esophagitis?

Eosinophilic Esophagitis (EoE) is a chronic, local immune-mediated esophageal disease characterized by symptoms related to esophageal dysfunction and histologically an eosinophilic-predominant inflammation (Schaefer, et al., 2018). Disease is defined as a "chronic, local immune-mediated esophageal disease characterized by symptoms related to esophageal dysfunction and histologically an eosinophilic-predominant inflammation" (Schaefer, et al., 2018). Significantly, the diagnosis of EoE is a relatively new diagnosis being discovered and recognized in the last twenty years (Vormesel, et al., 2017), and is found more often in males than females (Posten, Adamiak, & Jensen, 2018).

Signs and Symptoms

• Heartburn despite proton pump inhibitor (PPI) use
• Poor weight gain or failure to thrive in infants or children
• Refusal to eat or food aversion
• Vomiting often occurring with meals
• Difficulty swallowing (dysphagia)
• Pain or discomfort with swallowing
• Blood in stool
• Food becoming lodged within the esophagus (food impaction)
• Other related symptoms can include chronic cough or chest/throat or abdominal pain.

Pathophysiology of Eosinophilic Esophagitis

EoE is thought to be mediated by type 2 helper T-cell activity, induced by food antigens. Interleukin-5 and interleukin-13 also thought to have involvement in the manifestation if EoE. Once an allergen is introduced into the system, eosinophils migrate into the esophagus by interleukin-5 and interleukin-13 and eotaxin (which is a chemoattractant for eosinophils). The eosinophils cause mucosal injury via release of inflammatory mediators such as cytoskeletal granule proteins, cytokines, and reactive oxygen intermediates (Posten, Adamiak, & Jensen, p.363, 2018). The inflammatory response continues to respond adding both functional and structural abnormalities that lead to the signs and symptoms of EoE (Posten, Adamiak, & Jensen, 2018).

Due to the newer nature of Eosinophilic Esophagitis, understanding this disease, the pathophysiology, treatment options are essential to providing holistic care to patients. As a future Nurse practitioner (NP) we understand the disease processes and understand triggers for the disease processes. This would allow for optimal treatment plans, understanding complications or side effects, and promoting a high quality of life. Education is also a significant component to the pathophysiology. Educating patients and family on the origin of this disease can help guide their treatment plan. Each person diagnosed with EoE can vary widely in signs and symptoms, ranging from mild to severe, and knowing what triggers the flare ups makes the management of EoE achievable.

Nursing Implications

• Education is extremely important, including education on all medication options and treatments, side effects to look for.
• Proper swallowing technique, as well as ways to minimize discomfort after eating.
• Knowing signs, symptoms, and understanding that treatment should be multidisciplinary, including a GI specialist and an allergy specialist to assist with symptoms.
• Understanding this is a life long disease, and that with proper medication and treatment management is possible.
• Understanding Treatment options that include medications (oral antihistamine, oral glucocorticoids, and oral and topical medications) food elimination diet and scheduled EGD's to assess progression.

Conclusion

Eosinophilic Esophagitis is a chronic inflammatory response to food that affects the esophagus. It is a very young diagnosis with increasing incidence in the United States. Despite huge strides in treatment and quality of life, more research is needed on the diagnosis and treatment.

Eosinophilic Esophagitis: Advocacy and Research Groups.

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References
