

Session/Poster#

Presenter

A03

Wajiha Kazmi

College of Medicine Student

Advisor(s): Dr. Rauno Joks, Department of Medicine, Division of Allergy and Immunology

A Case of Non-Allergic Severe Persistent Eosinophilic Asthma and AERD Presenting with Hilar Lymphadenopathy

A 32-year-old male with adult-onset severe persistent asthma and bilateral hilar lymphadenopathy was referred for evaluation after experiencing over 10 asthma exacerbations per year requiring oral steroids. The asthma was exacerbated by aspirin and NSAIDs. Associated symptoms included nasal congestion, sinus pressure, and anosmia. Physical exam revealed no nasal polyps and no current wheeze. CBC showed elevated absolute eosinophils of 600/uL - 1000/uL over the past 6 months. Infectious and autoimmune labs were unremarkable. CT chest revealed hilar lymphadenopathy and RUL "tree-in-bud" infiltrate. Transbronchial biopsy of the right middle lobe revealed eosinophilia (75/hpf). Skin prick testing and serum IgE for environmental allergens was negative. Current medications include albuterol, budesonide/formoterol, and montelukast. The differential includes atypical chronic eosinophilic pneumonia, eosinophilic granulomatosis with polyangiitis, or sarcoidosis. Severe asthma affects 5-10% of the total asthma population and eosinophilia is a prominent feature [1]. The evaluation of adult-onset severe asthma with eosinophilia should consider the spectrum of eosinophilic airway diseases in the differential. Patients with severe asthma, chronic rhinosinusitis, and concomitant AERD experience a greater burden of illness [2]. With poorly controlled asthma despite multiple therapies, the role of anti-IL-5 biologic therapies must be considered.

References: 1. Buhl R, Humbert M, Bjermer L, Chanez P, Heaney LG, Pavord I, Quirce S, Virchow JC, Holgate S; expert group of the European Consensus Meeting for Severe Eosinophilic Asthma. Severe eosinophilic asthma: a roadmap to consensus. *Eur Respir J.* 2017 May 1;49(5):1700634. doi: 10.1183/13993003.00634-2017.

2. Dominas C, Gadkaree S, Maxfield AZ, Gray ST, Bergmark RW. Aspirin- exacerbated respiratory disease: A review. *Laryngoscope Investig Otolaryngol.* 2020 May 1;5(3):360-367. doi: 10.1002/lio2.387.