demonstrated complete resolution of his eosinophilia with medical management of his asthma.

M122
Mepolizumab: A Steroid Alternative for Chronic Eosinophilic Pneumonia
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Introduction: Chronic eosinophilic pneumonia (CEP) is an idiopathic inflammatory disease characterized by pulmonary eosinophilia. Patients can present with progressive respiratory symptoms including dyspnea, productive cough, fever, and opacities seen on radiography. Two third of patients can present with concomitant asthma. Despite favorable therapeutic response to systemic corticosteroids, relapses upon cessation of therapy or tapering may necessitate prolonged treatment.

Case Presentation: We present a 66-year-old nonsmoker female with allergic rhinitis, atrial fibrillation, and adult diagnosed corticosteroid dependent asthma on home O2 (3L/min) who presented for evaluation of continuation of omalizumab for asthma management to decrease exacerbations and systemic corticosteroids. Despite systemic corticosteroid use, she had recurrent exacerbations with peripheral serum eosinophilia of 7000 cells/μl. CT chest revealed pulmonary infiltrates in the mid to lower lung zones bilaterally. Bronchoalveolar lavage fluid was negative for fungi, acid-fast bacilli, pneumocystis jiroweri, legionella pneumophila, aspergillus galactomannan, and HSV. CEP was diagnosed via bronchoscopy biopsy which revealed lymphoplasmacytic infiltrates with eosinophilia. Other etiology for eosinophilia was negative including antinuclear cytoplasmic antibody. Initiation of mepolizumab 100 mg every 4 weeks permitted discontinuation of systemic corticosteroids, oxygen therapy, and led to a maintenance regimen of nebulated budesonide and montelukast. This patient has remained exacerbation free for over 1 year and corticosteroid free with mepolizumab therapy.

Discussion: Mepolizumab is an anti-IL-5 monoclonal antibody that is currently approved for eosinophilic asthma, hypereosinophilic syndrome, and eosinophilic granulomatosis with polyangiitis. Mepolizumab is a safe corticosteroid sparing alternative therapy for CEP, avoiding harmful side effects of systemic corticosteroids.

M123
Atypical Carcinoid - An Unusual Asthma Mimic
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Introduction: Asthma presents with symptoms of variable airflow flow obstruction such as wheezing, shortness of breath, cough, and exercise intolerance. We describe a case of an atypical endobronchial carcinoid tumor masquerading as asthma.

Case Description: A healthy 27-year-old male presented to allergy clinic with persistent coughing and wheezing after a viral illness three months prior. Despite improvement in symptoms and peak flows with asthma and allergic rhinitis directed therapy, symptoms persisted requiring asthma step-up therapy. Over six months, he continued to have exercise intolerance with tachycardia and chest tightness that improved but did not resolve with controller inhalers. He had a notable absence of constitutional symptoms, diarrhea and flushing. Spirometry performed once pandemic restrictions were lifted revealed a moderately severe obstructive defect with no bronchodilator response. Flow-volume loop suggested expiratory flow limitation. Fractional exhaled nitric oxide (FENO) level was low and did not suggest increased type-2 airway inflammation. Further imaging was ordered and he was referred to pulmonology. A dynamic inspiratory/expiratory phase CT scan of the lungs was obtained showing an endobronchial lesion causing near obstruction of the left mainstem bronchus with evidence of air trapping (Figure 1). Bronchoscopy biopsy confirmed atypical carcinoid tumor. A successful robotic resection of the distal left main stem and sleeve lower lobectomy and mediastinal lymphadenectomy with cardiothoracic surgery was performed a year after initial presentation.

Discussion: Rare causes of symptoms mimicking asthma should be considered in otherwise healthy patients with persistent symptoms of asthma not fully responsive to standard therapy and abnormal spirometry.

M124
Eosinophilia in a 64-Year-Old Male with Severe Persistent Asthma
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Introduction: Eosinophilia is a common finding in patients with allergic disease processes and should prompt further evaluation to rule out certain parasitic infections, hematologic and neoplastic disorders, immunologic disorders, and a variety of other disease processes.

Case Description: Here, we present a 64-year-old male with asthma diagnosed a year prior to presentation. A few weeks after being hospitalized for pneumonia and mild pulmonary edema, he returned to the hospital for new-onset chest pain. He was found to have a marked eosinophilia at 15,280 cells/mcL and continued severe persistent asthma, a marked increase in eosinophil count was thought to be driven at least in part by dupilumab, which has been known to cause increased peripheral eosinophilia. This case demonstrates the need to keep a broad differential diagnosis when evaluating a patient with eosinophilia. Our patient was subsequently started on benralizumab with improvement in his
M125
SUCCESSFUL USE OF DUPILUMAB FOLLOWING POOR RESPONSE TO MEPOLIZUMAB IN A 16-YEAR-OLD MALE WITH EGPA
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Introduction: Eosinophilic granulomatosis with polyangiitis (EGPA, also known as Churg-Strauss syndrome) is a multi-system autoimmune disease most often diagnosed in adulthood, although patients typically have a history of other inflammatory disorders in childhood; While an exact cause has yet to be fully discovered, there is a clear correlation between EGPA and childhood manifestations of immune system hyperreactivity to include allergies and asthma. Treatments which target specific inflammatory signaling pathways are actively under investigation. Of particular interest is the role of biologic therapy in the treatment of autoimmune disorders such as EGPA.

Case Description: In this case, we present a 16-year-old male with asthma and biopsy-proven EGPA whose respiratory symptoms were minimally responsive to IL-5 inhibition with mepolizumab. He was initiated on dupilumab, a first-in-class monoclonal antibody which binds IL-4Ra and reduces inflammation via modulation of IL-4 and IL-13 signaling. After initiation of treatment, our patient demonstrated a reduction in asthma exacerbation frequency and severity as well as an overall improvement in daily respiratory symptoms.

Discussion: Further studies are needed to elucidate the role of IL-4/IL-13 signaling in the pathophysiology of EGPA. Additionally, the role of biologic therapy targeting those pathways as a treatment modality for EGPA needs to be further explored, particularly in the context of patients in whom conservative medical therapy has failed.

M126
HYPERSENSITIVITY PNEUMONITIS OR EVALI? A CASE OF ACUTE RESPIRATORY FAILURE IN AN ADOLESCENT
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Introduction: Hypersensitivity pneumonitis is an interstitial lung disease caused by lymphocytic response to inhalant exposures such as molds or avian excreta. Given its complexity and variation in presentation, the diagnosis of hypersensitivity pneumonitis requires obtaining a detailed exposure history and thorough workup.

Case Description: A 17-year-old previously healthy female without asthma history developed cough, fever, and shortness of breath. A week later, she was intubated for acute respiratory failure. Her initial imaging revealed pneumomediastinum and pneumopericardium with ground glass opacities. The etiology of her respiratory failure remained unclear. Infectious workup, including multiple COVID tests, was negative. Given that she cares for horses, a hypersensitivity pneumonitis panel was done and revealed elevated aspergillus fumigatus IgG level >200 mcg/mL and total IgE of 571 kU/L. BAL showed elevated neutrophil count and lung biopsy was not obtained. She was extubated after a week and subsequently revealed that she vapes marijuana. This introduced e-cigarette and vaping associated lung injury (EVALI) as another etiology for her presentation. She ultimately completed an extended course of steroids and was discharged on supplemental oxygen.

Discussion: Our patient presented with acute respiratory failure and negative infectious workup. Initial social history revealed frequent exposure to horse barns, leading to a diagnosis of hypersensitivity pneumonitis. However, it was subsequently revealed that she vaped, which introduced EVALI as another possibility. While her final diagnosis remains nebulous, this case highlights the importance of maintaining a broad differential during assessment of acute respiratory failure and the critical role that astute history taking plays in the diagnostic process.

M127
A MULTIFACETED APPROACH TO DIAGNOSIS AND MANAGEMENT OF POST COVID-19 ASSOCIATED DYSPNEA IN ADOLESCENTS
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Introduction: A post SARS-CoV-2 (COVID-19) syndrome known as “long COVID” has been described in adult patients characterized by symptoms persisting months after acute infection. Here we describe three cases of adolescents who had dyspnea noted months after COVID-19 infection.

Case Description: Case 1: LK is a 17 year old who developed dyspnea on exertion persisting over a year after recovering from COVID-19. Impulse oscillometry (IOS) was notable for reversibility in small airways with albuterol. She was started on budesonide-formoterol twice daily and albuterol prior to exercise with significant clinical improvement. Case 2: JJ is a 16 year old who presented for dyspnea on exertion that worsened after COVID-19. She completed exercise laryngoscopy which showed exercise induced laryngeal obstruction (EILO). She also had gastroesophageal reflux disease (GERD) which worsened after COVID-19 possibly triggering EILO. Case 3: JD is a 14 year old who presented for a history of dyspnea both at rest and upon exertion. She noted worsening dyspnea continuing months after recovering from COVID-19. Her pulmonary function testing and IOS showed evidence of obstruction and reversibility with albuterol. She was started on fluticasone propionate and salmeterol twice daily.

Discussion: The evaluation of dyspnea in adolescents with “long COVID” requires a multifaceted diagnostic and therapeutic approach. Once they were diagnosed with asthma and EILO it was also discovered that other conditions including GERD and anxiety were likely exacerbating their dyspnea. A multidisciplinary team including gastroenterology, social work, psychiatry, and psychology was able to diagnose and treat these conditions as well.