An Unusual Case of Alveolar Hemorrhage Responding to a Gluten-Free Diet

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Background

Idiopathic pulmonary hemosiderosis (IPH) is a rare cause of hemoptysis in children. The association of IPH with celiac disease is infrequent and has been described in the pediatric population as Lane-Hamilton syndrome (LAH). We present a case of an adult patient with suspected LAH that responded to a gluten-free diet.

Case Presentation

A 47-year-old male presented with cough, and shortness of breath, associated with abdominal bloating and diarrhea. Laboratory workup was significant for a low hemoglobin level. High-resolution computed tomography of the chest (HRCT) revealed a diffuse, non-specific inflammatory process with reactive hilar lymphadenopathy. The patient underwent bronchoscopy with endobronchial ultrasound (EBUS), and bronchoalveolar lavage (BAL) was performed; however, an attempt to obtain a biopsy was unsuccessful after the patient had oxygen desaturation during the procedure. BAL showed abundant hemosiderin-laden macrophages, three times more than normal. Tissue transglutaminase and gliadin-A antibodies were positive suggestive of celiac disease. Given the high suspicion of LAH, the patient was started on a gluten-free diet, and his symptoms, hemoglobin level, and CT imaging significantly improved after a 3-month follow-up.

Conclusion

The combination of IPH and celiac disease, known as Lane-Hamilton syndrome, is extremely rare. The association between these two conditions remains unclear and is presumed immune-mediated. Very few cases have been reported in adults with limited literature on management. Screening for celiac disease is recommended for suspected IPH, and a gluten-free diet trial is suggested even in the adult population.

All authors of this case have no conflicts of interest. References available upon request.