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Nicole Onatsko

Advisor(s): Mohan Preet M.D.

Co-author(s): Imad Karam, Aye Thida, Hagar Attia , Dedipya Bhamidipati , Rachelle Hamadi, Raavi Gupta

Pleural Marginal Zone Lymphoma Masquerading as Metastatic Adenocarcinoma of the Lung

Extranodal marginal zone lymphoma (EMZL) is a rare subtype of non-Hodgkin's lymphoma characterized by the malignant transformation of lymphoid tissue at sites affected by chronic inflammation. Pleural marginal zone lymphoma (PMZL) is an infrequent manifestation of this condition. We report a case of PMZL co-occurring with primary lung adenocarcinoma.

This case involves an 88-year-old female patient who presented to the emergency department with recurrent pleural effusions and symptoms suggestive of decompensated heart failure. Thoracentesis of the effusion revealed an aspergillus population. Throughout her hospitalization, the patient underwent multiple evaluations for malignancy; however, no conclusive findings emerged. Ultimately, PMZL and poorly differentiated primary adenocarcinoma of the lung were confirmed through random biopsies of the parietal pleura and lung opacities, respectively. Unfortunately, due to deconditioning from multiple hospitalizations and a pulmonary embolism, the patient chose comfort measures and subsequently passed away.

Diagnosing PMZL can be challenging due to the absence of identifiable nodules. Reported cases have similarly required extensive investigations to reach a final diagnosis. While a direct correlation between chronic inflammation, frequent infectious pathogens, and the development of PMZL has yet to be established, a known association exists between EMZL and pathogens such as *Helicobacter pylori* in gastric involvement and *Chlamydia psittaci* in ocular adnexa.

This report highlights the difficulties in obtaining a diagnosis for PMZL and examines the various mechanisms that may have contributed to this unusual finding. Closer inspection of the few existing case reports, as well as the patient's own medical history, reveals that chronic inflammation from heart failure and possibly aspergillosis may have fostered the right conditions for this rare development.