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Endobronchial Hemangioma in Renal Cell Carcinoma Patient: An Incidental Encounter

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Krima S. Patel [1], Shivam Patel [1], Aryan Shah [2], Yash Bhalala [3], Saketh Palasamudram Shekar [4, 5]

1. MBBS, Smt. NHL Municipal Medical College, Ahmedabad, IND 2. MBBS, GMERS Gandhinagar Medical College, Gandhinagar, IND 3. MBBS, Shri MP Shah Govt. Medical College, Jamnagar, IND 4. Pulmonary and Critical Care, Pulmonary and Sleep associates of Huntsville, Huntsville, USA 5. Pulmonary and Critical Care, University of Alabama at Birmingham School of Medicine, Huntsville, USA

Corresponding author: Krima S. Patel, drkrimapatel@gmail.com

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Abstract

INTRODUCTION:

Endobronchial hemangiomas are rare lesions that can present incidentally or with symptoms like hemoptysis, chest pain or dyspnea. We present a case of endobronchial hemangioma which was detected incidentally through bronchoscopy, in a patient treated for renal cell carcinoma. The identification of such co-existing conditions can alter the management approach.

CLINICAL PRESENTATION:

A 54-year-old female with a known case of clear cell renal cell carcinoma status post-left nephrectomy was referred to the outpatient centre for a right lower lobe 1.3 cm lung nodule that was not hypermetabolic on PET-CT. She underwent a bronchoscopy with biopsy, during which a right upper lobe endobronchial mass was found incidentally. On non-contrast CT imaging, there was an apical segmental right upper lobe endobronchial occlusion which further extended into the right upper lobe bronchi(Figures 1a and 1b). Subsequently, it was excised with a hot snare and debulked with a biopsy. A right lower lobe FNAC, BAL, and cytology revealed atypical cells not diagnostic of malignancy. An endobronchial biopsy of the upper right lobe revealed a well-defined polypoid lesion lined by respiratory epithelium with metaplastic squamous mucosa and underlying vascular proliferation. The vascular component shows numerous small vessels lined by bland endothelial cells that are highlighted by the provided CD34 immunostain. Occasional multinucleated cells have smudgy chromatin; however, there are no clear cells or features suggestive of metastatic renal cell carcinoma. The two negative PAX8 immunostains provided further support for this. Overall, the findings were consistent with hemangioma.

CONCLUSION:

Capillary hemangioma, an exceptionally rare tracheobronchial lesion in adults, is typically benign and can manifest on various mucosal surfaces. Detection in the adult tracheobronchial tree often involves bronchoscopic methods and mucosal lesions commonly treated using snare cautery, excision biopsy, or radiation. While the recurrence of skin and mucosal lesions is recognized after local therapy, malignant transformation remains unreported. The scarcity of hemangiomas, particularly of pulmonary origin, underscores diagnostic challenges, emphasising the need for meticulous radiological and bronchoscopic assessments. This report suggests further exploration into potential associations between renal carcinoma and pulmonary hemangiomas, aiming to uncover shared molecular pathways and genetic predispositions explaining their occasional co-occurrence. The coexistence of these two distinct pathologies emphasises the complexity of cancer presentations and the need for a multidisciplinary approach to managing such cases.