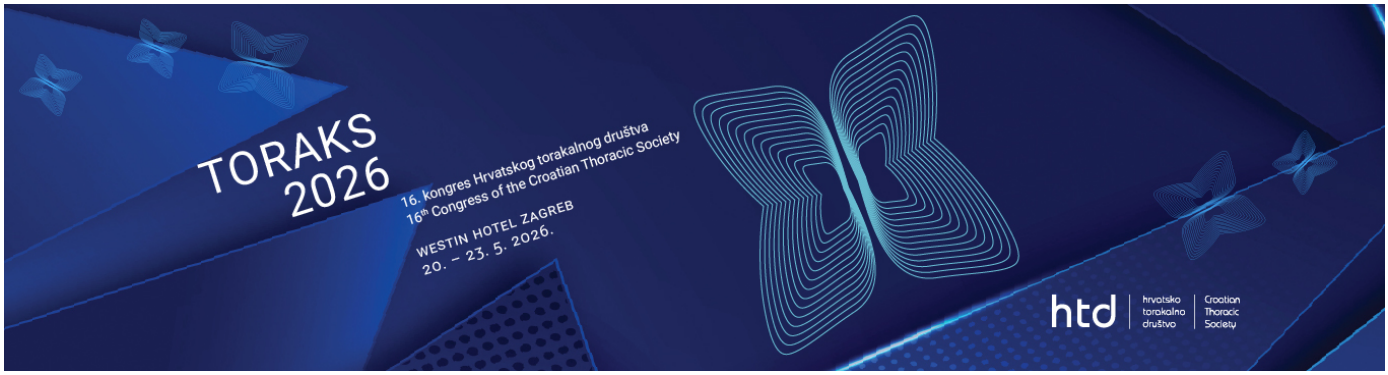


COMBINED SMALL CELL LUNG CANCER: IMPORTANCE OF SURGICAL RESECTION IN DIAGNOSIS AND MANAGEMENT

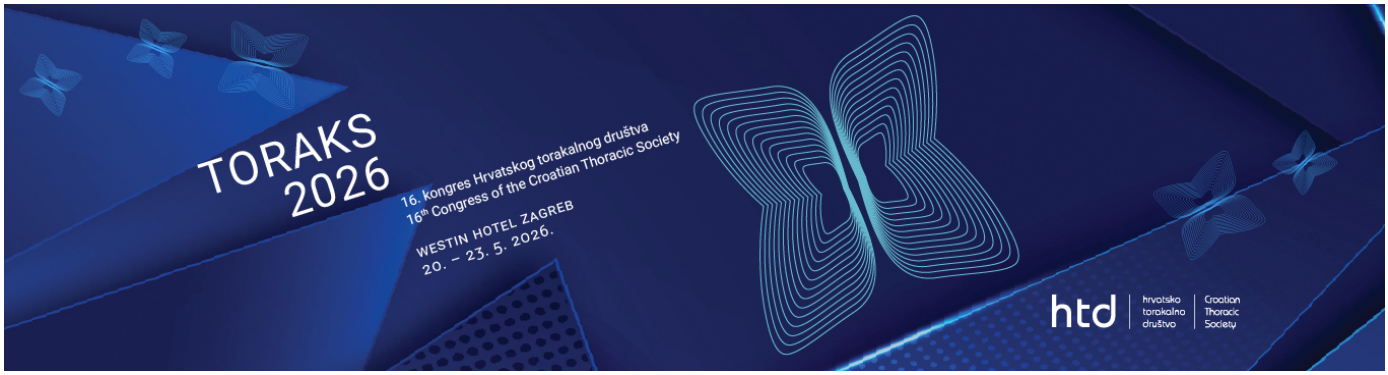
BEČEJAC T.[1], Vrančić M.[1], Toljan K.[1], Živić A.[1], Penović T.[1], Draženović D.[1], Jalšovec D.[1]

[1] University Hospital Centre Zagreb, Zagreb, Croatia
Department of Thoracic Surgery

Objective:

INTRODUCTION

Combined small cell lung cancer (CSCLC) is a rare subtype of lung cancer consisting of small cell lung carcinoma (SCLC) and a component of non-small cell lung cancer (NSCLC). It is rare and highly aggressive, making both diagnosis and treatment particularly difficult and demanding. Additionally, diagnosis is often difficult because limited biopsy samples may not capture all tumor components, potentially leading to the non-small cell component being missed on initial pathohistological analysis. This distinction is clinically important, as incorrect classification between pure SCLC and CSCLC can lead to inadequate treatment.

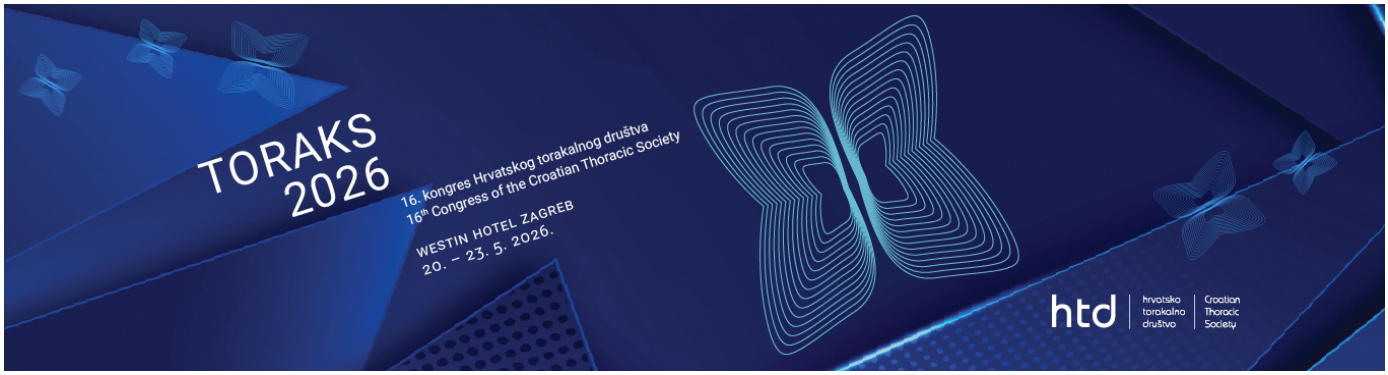


CASE REPORT

A 65-year-old male patient presented to the University Hospital due to persistent cough and dyspnea. Chest radiography revealed two poorly defined infiltrates in the projection of the left lung field. Initial treatment included ceftriaxone antibiotic therapy followed by 10 days of amoxicillin/clavulanic acid. Despite this, the patient remained febrile up to 38 °C, continued to produce yellow-orange sputum, and reported unintentional weight loss. His past medical history included arterial hypertension, dyslipidemia, chronic obstructive pulmonary disease, and a prior appendectomy. He was a heavy smoker with a history of approximately 1.5 packs per day for 40 years. CT-guided biopsy identified tumor tissue consistent with small cell neuroendocrine carcinoma, immunohistochemically positive for CD56, negative for p40 and TTF-1, with a Ki-67 proliferative index of approximately 90%. A PET-CT scan and EBUS lymph node puncture showed no evidence of distant metastases. A multidisciplinary tumor board recommended video-assisted thoracoscopic surgery (VATS) with left upper lobectomy and mediastinal lymphadenectomy. Surgery was performed successfully with no intraoperative complications. Pathohistological analysis confirmed a combined small cell carcinoma consisting of small and non-small cell neuroendocrine components. Tumor staging was pT2N0. Programmed death-1 (PD-1) expression was negative. Postoperatively, adjuvant chemotherapy based on platinum compounds was indicated.

CONCLUSION

This case shows the importance of recognizing CSCLC as a distinct and aggressive entity. Initial biopsy suggested pure SCLC, whereas postoperative pathology revealed combined histology, which impacted treatment decisions. Surgical resection was important not only therapeutically but also



diagnostically, as a limited biopsy might miss additional tumor components. Given its rarity, further case reports such as this one are important in order to recognize the possibility of another cell component and ensure it is not missed.