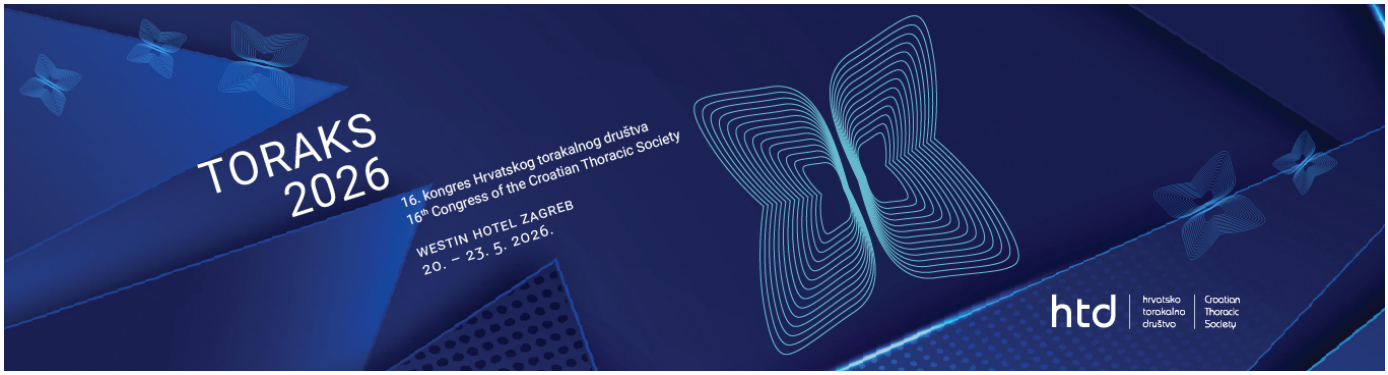


GANGLIONEUROMAS AND PARAGANGLIOMAS- RARE TUMORS IN THE THORACIC CAVITY

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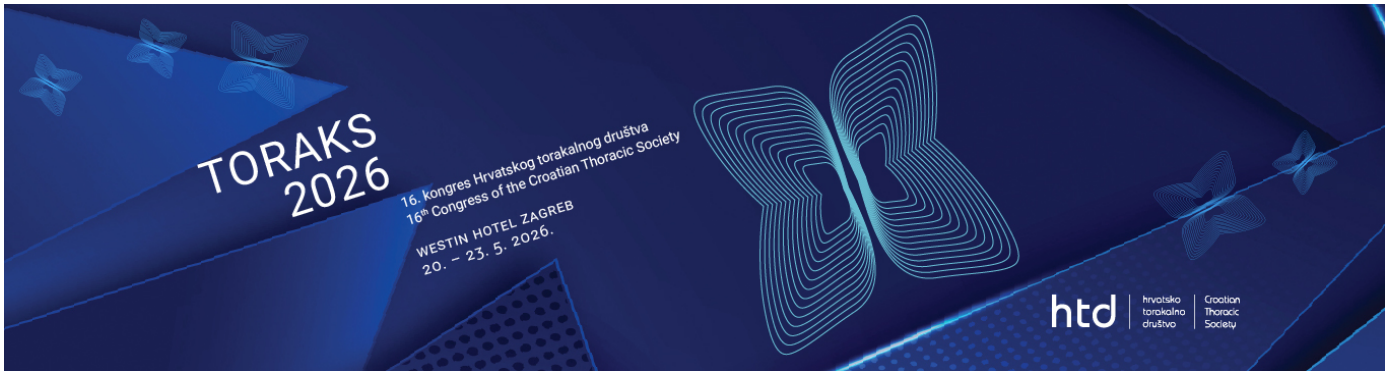
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Objective:

Introduction:

Ganglioneuromas and paragangliomas have a neural origin and can occur in similar locations. Ganglioneuromas are benign, slow-growing, non-hormone-secreting tumors, usually asymptomatic, causing symptoms only by local compression. Paragangliomas often secrete catecholamines, causing hypertension, headache, sweating and heart palpitations. They are more often found in adults and have malignant potential.

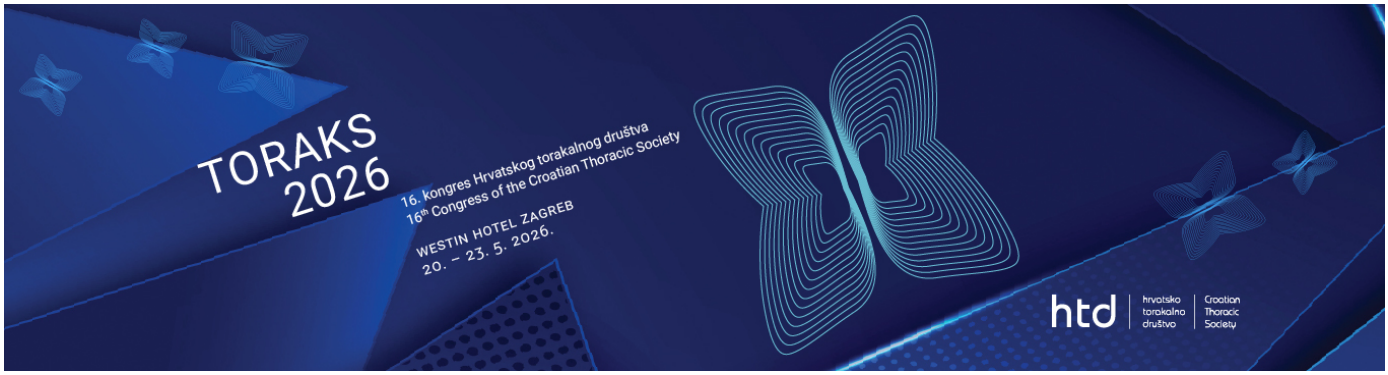


Case report:

A 50-year-old male patient with chronic hypertension presented to the emergency department with dyspnea and a sensation of irregular heartbeat. Atrial fibrillation was discovered. Further diagnostic revealed severely reduced biventricular systolic function with mitral regurgitation, and persistent atrial fibrillation, which has been resolved with ablation. The patient was referred for cardiac magnetic resonance imaging (MRI) to determine the etiology of heart failure. MRI confirmed dilatative cardiomyopathy and incidentally revealed a paravertebral mass in the left hemithorax at the level Th2-Th4, measuring approximately 5 cm in diameter. Additional MRI of the thoracic spine showed a well-circumscribed, expansive mass compressing the underlying lung and extending into the corresponding intervertebral spaces. A transthoracic biopsy result showed a tumor of neural origin without malignant potential. However, a definitive diagnosis couldn’t be established until after the complete resection. With potential hormonal activity of the suspected paraganglioma, an endocrinology diagnostic revealed elevated normetanephrine levels with normal metanephrine levels. Chromogranin A levels were within normal range. Surgical resection was then indicated. Although a left-sided VATS (video-assisted thoracoscopic surgery) had been planned, intraoperative conversion into a left-sided minithoracotomy was needed. The third and fourth left ribs were partially resected, and the tumor was entirely removed. Definitive histopathological examination revealed a ganglioneuroma.

Conclusion:

Rare tumors of the nervous system, such as ganglioneuromas or paragangliomas, can occur in the thoracic cavity. They can be benign or malignant and exhibit different clinical manifestations. The



definitive diagnosis is often established only after a complete surgical resection of the tumor.