

Primary squamous cell carcinoma of the thyroid

Teo Radovan, Ervin Mujkanović, Marin Sokolić

OB Pula, Santoriova 24A, 52100 Pula, Hrvatska

teoradovan7@gmail.com

Primary squamous cell carcinoma of the thyroid is an exceptionally rare malignancy, accounting for less than 1% of all thyroid cancers. It is characterized by aggressive behavior, a tendency for rapid local spread, and very poor prognosis, with an average survival time of less than one year after diagnosis. The diagnostic challenge lies in distinguishing the primary lesion from the invasion of squamous cell carcinoma from adjacent structures or metastatic disease. The primary manifestation of the disease in PSCC involves a rapidly growing neck mass, followed by symptoms and signs related to the involvement of other structures. There are several theories regarding the origin of primary squamous cell carcinoma of the thyroid, with the most widely accepted being the theory of metaplasia of follicular epithelial cells and the residual embryonal theory. Due to its rarity and the absence of standardized therapeutic protocols, every newly reported case contributes to a better understanding of the clinical presentation, diagnostic criteria, and potential treatment options for this entity. We present the case of a 69-year-old male who presented to the Emergency Department with a rapidly growing mass on the right side of the neck. The patient had gradually developed symptoms including hemoptysis, dyspnea, dysphagia, and dysphonia over the past month. Clinical examination revealed right vocal cord paralysis and biphasic stridor. CT imaging showed a large proliferative mass in the right lobe of the thyroid infiltrating the trachea. During an emergency tracheotomy, a sample was taken for pathological analysis. The sample sent for histological and immunohistochemical analysis was consistent with squamous cell carcinoma. Further diagnostic work-up included a fine-needle aspiration (FNA) biopsy, re-biopsy during direct laryngoscopy, and CT scans of the abdomen and pelvis, which did not show any evidence of the disease spread. In conclusion, primary squamous cell carcinoma of the thyroid is extremely rare and presents a diagnostic challenge. However, it should be considered in the differential diagnosis when evaluating neck tumors with squamous histology. According to the 2022 WHO classification of tumors, it is no longer classified as a separate entity but as a subtype of anaplastic carcinoma with squamous differentiation.

Key words: primary squamous cell carcinoma of the thyroid, hemoptysis, tracheotomy