



## Thyroid Metastases from Renal Cell Carcinoma Some Years After Nephrectomy

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### Introduction

Renal cell carcinoma (RCC) is known to cause metastasis to unusual sites. The thyroid gland is a rare site for metastasis [1] but, when it occurs, RCC is the most common primary neoplasm and can develop many years after initial diagnosis [2]. We retrospectively reviewed our database of RCC patients with thyroid metastases [3]. We aimed to investigate the incidence of thyroid metastasis from RCC and describe patients' characteristics, initial presenting symptoms at the diagnosis of the thyroid metastasis, diagnostic and therapeutic modalities used, the average latency time before the detection of metastasis after nephrectomy [4], presence of metastatic sites other than the thyroid gland, follow-up time after detection of thyroid metastasis with the final status of the patients.

### Conclusion

The total number of RCC patients observed from 2004 to 2019 in our institution was of about 208 cases. Out of these, only 3 patients developed thyroid metastasis from RCC. The average lag time to the diagnosis of thyroid metastases was ten years for two patients. Regarding the tests performed for the diagnosis of RCC metastases to the thyroid gland, ultrasound of the neck was the most frequently used radiological imaging modality followed by computed tomography and positron emission tomography [5,6]. The patients subsequently underwent fine-needle aspiration cytology. Immunohistochemistry is helpful in the differential diagnosis. All patients underwent radical thyroid surgery [7]. The histopathological examination showed metastatic RCC of clear cell type in all three cases. The subsequent follow up was negative. A thyroid nodule in a patient with a history of RCC should be considered as potentially metastatic [8]. It's impossible to distinguish between primary and secondary thyroid neoplasms on imaging, in fact, clinical manifestation and radiographic findings are nonspecific. FNA cytology and

immunohistochemistry help establish the diagnosis and should be obtained in suspected cases. The definitive diagnosis of metastatic RCC is usually made by histopathological examination after thyroidectomy [9]. Our cases demonstrate the importance of considering RCC metastasis to the thyroid even years after nephrectomy to decrease potential delays in diagnosis [10].

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