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Renal Metastases from Thyroid Carcinoma

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Dear Editor:

We are writing regarding a recent article entitled "Renal Metastasis from Hurthle Cell Thyroid Carcinoma and Its Evaluation with Hybrid Imaging" by Djekidel *et al*. (1). We agree with the authors' point regarding the rarity of renal involvement from primary cancers of the thyroid. In our recently accepted article, however, a literature search revealed that renal metastases from a primary thyroid cancer have been reported in about 20 patients to date (2). This is contrary to the authors' claim that these metastases have been reported in only 10 patients. Another pertinent reference describing single photon emission computed tomography-computed tomography evidence for renal metastasis from follicular thyroid cancer should also be noted (3).

Second, Marino *et al.* (4) have reported a rare case of renal metastasis from thyroid carcinoma that started as Hurthle cell adenoma and transformed into a carcinoma with a follicular appearance after 26 years. Hence, this may not be the first case of Hurthle cell cancer with renal metastases.

Third, we were surprised to find that multiple lesions that showed F-18 fluorodeoxyglucose uptake were not thought to show iodine concentration. Perhaps, a small amount of abnormal uptake could have been missed on the radioiodine scan. In the literature and from our institutional experience of treating advance metastatic thyroid cancer, we find that many such lesions show both fluorodeoxyglucose and iodine avidity. Hence, they are amenable to administration of radioiodine therapy, in high doses of 200–250 mCi, with intent to palliate. Many such patients have dramatic symptomatic relief and good quality of life despite harboring multiple metastases.

References

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Response to Malhotra *et al.*

Mehdi Djekidel[2] and Anca M. Avram[3]

To the Editor:

We are happy to answer to the concerns raised by Malhotra *et al.* (1). First, we would like to note that diligence was made to retrieve and look at all references in the literature relating to the topic of renal metastasis in thyroid cancer. We acknowledge that it is plausible that more cases could have been reported in the worldwide medical literature; however, at the

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time of writing and review of our article, to the best of our knowledge, very few cases of renal metastases from thyroid cancer were reported. Our PubMed/National Library of Medicine search produced only 10 case reports. Notably, we tried to include only histologically proven cases of renal metastasis. In reviewing the case recently published by Malhotra *et al.* (2), we note that there is no histological proof for a renal metastatic lesion.

Our contention that thyroid cancer renal metastases are uncommon and require multimodality imaging and aggressive treatment remains valid. Our article brings histopathologic evidence for the thyroid Hurthle cell origin of the renal metastatic lesion, and this does not apply to the article of Malhotra *et al.* that reports on a patient with advanced, multisystem metastatic thyroid cancer, with widespread skeletal, pulmonary, mediastinal, hepatic, and adrenal involvement. The authors state that the metastatic sites were iodine-avid on 131-I scintigraphy, with the exception of the renal lesions (1.5×0.7 cm lesion in the right kidney, and a tiny 0.7 cm lesion in the left kidney) that were seen on computed tomography (CT) only. These lesions could be incidental and not related to the thyroid cancer.

The authors state that a focus of fluorodeoxyglucose (FDG) uptake was seen in the superior pole of the right kidney on postdiuretic spot view on positron emission tomography (PET), and they present this as evidence that the lesion seen on CT represented a renal metastasis; however, in the absence of cross-sectional anatomic imaging correlation with PET-CT, this activity may represent retained urinary FDG activity in an upper pole calyx. Evidence that the small renal lesions seen on CT scan represent thyroid cancer metastases is not compelling: although all the other metastatic sites displayed focal 131-I uptake, the renal lesions remained non-observed on both diagnostic and post-therapy 131-I scintigraphy. Histological evidence of the nature of the renal lesions was not presented.

We agree with Malhotra *et al.* that in patients with thyroid cancer regular surveillance is crucial. Their patient lived for two decades without thyroid hormone replacement due to functional thyroid cancer metastases producing thyroxine; the case is illustrative of the importance of long-term levo-thyroxine suppression for disease containment, limiting further progression and improving survival.

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