

Thyroid Disorders 2016 - Challenges in the management of patients with differentiated Thyroid carcinoma and renal metastasis: Case series with follow up

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Background: Renal metastasis has relatively less occurrence in patients with differentiated Thyroid carcinoma.

Methods: The various clinical, imaging, diagnostic and therapeutic parameters of a series of patients with differentiated Thyroid carcinoma and renal metastasis were assessed, together with follow-up data.

Results & Conclusion: 4 male patients over the age of 45 years with extensive disease at the primary site formed part of the series. Retro-sternal extension of the large goitre was observed in three of the four patients. The primary tumour was 4 cm or larger in all patients (range, 4–14 cm), and three patients had associated lymph node metastasis. None had any genito-urinary symptoms at presentation. Two patients had isolated renal metastases with no other distant metastases, while the others had extensive multiorgan involvement. The bilateral occurrence of lesions was a hallmark, being observed in all cases. The criticality of establishing the diagnosis of renal metastasis had important therapeutic implications. Ultrasound-guided fine needle aspiration cytology and ¹³¹I scintigraphy played a significant role in confirming the diagnosis. The optimization of the high dose radioiodine therapy aimed at stabilization of disease with serial meticulous monitoring of renal function facilitated the administration of cumulative average therapy dose of 21.83 GBq (range, 9.176 – 37.666 GBq) ¹³¹I in 3 to 4 divided doses. A meticulous and focused approach to establish an accurate diagnosis, ensuring a well maintained renal function without any further compromise due to the therapy or the disease per se and eventually optimization of the high dose radioiodine therapy helped to achieve a stable disease status at a minimum follow up period of four years after diagnosis in three patients. One patient had expired due to a poorly differentiated lung carcinoma, which developed subsequently.

Case 1: A 74 - year-elderly person was determined to have right kidney tumor on routine registered tomography (CT) 10 years after beginning medical procedure. His clinical history included close to add up to thyroidectomy for papillary thyroid malignancy (PTC) 10 years back and complete thyroidectomy for repeat 6 years prior. He didn't grumble of urinary side effects, for example, flank torment or hematuria. Blood test results were as per the following: creatinine (Cre), 0.78 mg/dL; blood urea nitrogen (BUN), 14.2 mg/dL; thyroid-animating hormone (TSH), 0.13 μ IU/mL; free thyroxine (F-T₄), 1.57 ng/mL; thyroglobulin (Tg), 95.0 ng/dL (Tg multiplying time, 0.31 years); and Tg immunizer (TgAb), 11 IU/mL. Transabdominal ultrasonography (US) uncovered a correct kidney tumor estimating 5.3 \times 3.7 cm. The tumor blood stream was like that of the kidneys. What's more, CT uncovered an unpredictable tumor mass anticipating outward from the correct kidney with no proof of other metastatic sores. Regardless of somewhat barely raised Tg level, imaging investigations of the correct kidney raised doubts of essential renal cell carcinoma (RCC). Following conferences with urologists, a privilege laparoscopic radical nephrectomy was performed. The pathology report uncovered that the correct nephrectomy example contained a grayish tumor estimating 5.5 \times 5.0 cm on the upper shaf. Histological segments of the resected example uncovered that the tumor shaped a papillary structure, and the lumen was loaded up with eosinophilic substances that were viewed as colloids. Further, singular malignant growth cells had atomic furrows, and discoveries reminiscent of atomic considerations were watched and 1(d)). Immunohistochemistry (IHC) results were sure for thyroid translation factor 1 (TTF-1) and Tg and 1(f)). The patient was released from the clinic on postoperative day 7 with no intricacies. Postoperatively, the Tg level dimin-

ished to 3.05 ng/dL and, 3 years after nephrectomy, no repeat has been accounted for.

Case 2: A 68-year-elderly person, with clinical history of absolute thyroidectomy for follicular thyroid carcinoma (FTC) 24 years prior, displayed a high Tg level. Notwithstanding, she didn't gripe of any urinary manifestations. Her blood test results were as per the following: Cre, 0.65 mg/dL; BUN, 14.7 mg/dL; TSH, 0.09 μ IU/mL; F-T4, 1.35 ng/mL; Tg, 10500.0 ng/dL (Tg multiplying time, 0.31 years); and TgAb, 11 IU/mL. CT uncovered a left kidney tumor estimating 4.0 \times 3.5 cm. The Tg level was amazingly high; hence, repeat of FTC was overwhelmingly suspected. Notwithstanding, CT distinguished no other metastatic sore, and nephrectomy was performed. The pathology report uncovered that the left nephrectomy example involved a light earthy colored tumor estimating 4.5 \times 4.4 cm on the lower shaft). What's more, histological segments of the resected example uncovered that the tumor framed a follicular structure and was experiencing invasion and multiplication. Moreover, IHC was certain for TTF-1 and Tg and 2(f)). The patient was released from the emergency clinic on postoperative day 6 with no complexities. The Tg level diminished postoperatively to 298 ng/dL.

Case 3: In 2012, around 230,000 and 70,000 new instances of thyroid malignant growth were evaluated among females and guys, individually, with an age-normalized (total populace) pace of 6.10/100,000 females and 1.90/100,000 guys. Both PTC and FTC are called DTC, representing >95% of all thyroid carcinoma cases. The visualization of DTC is acceptable, and the illness explicit endurance rate is apparently >90%. In any case, some DTCs create inaccessible metastasis, the recurrence of which has been accounted for to be 4 %-15 %, with the lung being the most continuous metastatic site. The root of renal tumor beginning from thyroid malignant growth is amazingly uncommon, with a commonness of 0.47%. Habitually, metastatic renal tumors show poor clinical side effects, and patients bite the dust before creating manifestations. In this way, it is uncommon for the malignancy to be found during en-

durance and be dealt with. The term from the finding of thyroid malignant growth to the discovery of renal metastasis is long, and instances of >10 years have been accounted for already. When renal metastasis was analysed in cases 1 and 2 of this report, 10 and 24 years had slipped by since starting medical procedure, separately. Also, the two patients showed no emotional indications; be that as it may, kidney tumors were distinguished with entire body CT. The subsequent strategy following thyroid malignancy medical procedure has as of late changed from entire body RAI examining to US and serum Tg. In our cases, asymptomatic repetitive foci were distinguished by estimating the serum Tg level. Of note, entire body RAI checking could likewise be utilized to distinguish repetitive foci after DTC medical procedure; in any case, a chance of bogus positives exists for the kidneys in light of different illnesses, requiring consideration for assessment. Albeit metastatic renal tumors require separation from essential RCC, CT and MRI don't have trademark discoveries in metastatic renal tumor starting from thyroid malignant growth [7]. In our cases, a chance of renal metastasis of thyroid disease existed in light of the fact that the serum Tg level had expanded. Be that as it may, an instance of thyroid malignancy metastasized to RCC has been accounted for beforehand. Regardless of whether the extraction of far off metastasis adds to the anticipation of thyroid malignancy stays hazy. Be that as it may, following interview with urologists, we performed radical nephrectomy for symptomatic and helpful purposes in the two cases. The adequacy of resection of far off metastases has been examined in different malignant growths. In colorectal disease, hepatic resection is viewed as a standard treatment alternative for metastatic colorectal malignant growth and can bring about 10-year endurance paces of 20–26%, and potential fix. There is no settled proof in different tumors, yet there are cases in which long haul forecast is acquired by resection of oligometastasis. Consequently, the resection of oligometastasis in thyroid malignant growth treatment may be viewed as a treatment alternative.