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Case Report

First Case Report of Synchronous Metastatic RCC with Adrenal Metastasis and Urothelial Carcinoma of Bladder

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Abstract

A 80yr old gentleman with complaint of left sided insidious onset dull aching flank pain was diagnosed to have urinary bladder carcinoma together with Metastatic renal cell carcinoma of left kidney. This article covers the presentation, radiology, pathology, and intervention of an uncommon case of synchronous primary carcinoma.

Keywords: Urological Carcinomas; Multiple Primary Malignant Neoplasm; RCC with Bladder Cancer

Description

Synchronous occurrence of renal cell carcinoma (RCC) and urothelial cell carcinoma of urinary bladder (TCC) is rare with only a few cases reported in literature so far [1]. Billroth was the first to report the occurrence of synchronous malignant neoplasms in the same individual [2]. It has been noticed that the occurrence of secondary primary neoplasms is common in the upper digestive tract, head and neck region, or urogenital system [3]. Field cancerization effect which can be due to common risk factors as tobacco is the accepted hypothesis of synchronous as well as metachronous malignant tumors [3]. No case to the best of our knowledge has been ever reported in literature of metastatic renal cell carcinoma with synchronous primary bladder malignancy. Henceforth we here present a rare report of synchronous metastatic left renal cell carcinoma with tumor thrombus extending in IVC and contralateral urinary bladder primary urothelial carcinoma.

An 80-year-old man with no comorbidities presented with complaint of left sided insidious onset non progressive dull aching left flank pain for past 3 months. On examination he was found to have pallor and bilateral leg pitting edema extending up to the thighs. His abdomen was soft and no lump was palpable. On careful genitalia examination he was found to have left sided grade 3 varicoceles. Patient underwent routine blood investigations, in addition to moderate anemia, other blood chemistries were otherwise unremarkable.

Subsequently patient underwent CECT scan of abdomen/ pelvis and thorax that showed a heterogeneously enhancing renal mass completely replacing the renal parenchyma of size approximately 13.6 × 9.4 × 13.4 cm with extension in perinephric space and focal loss of fat planes with left psoas muscle. Mass was infiltrating infradiaphragmatic IVC up to the distance of 4.3 cm. There was presence of noncontiguous enhancing nodule in left adrenal gland of size 1cm suggestive of metastasis. In addition to above findings there was presence of asymmetrical heterogeneously enhancing bladder wall thickening of 17mm present in right posterolateral wall of urinary bladder suggestive of synchronous bladder malignancy. His urine for malignant cytology was eventually sent that came positive for malignant urothelial cells.

Following multidisciplinary team discussion, in view of advanced nature of the disease, presence of adrenal metastasis, poor performance status (ECOG 3) and advanced age of the patient; he was planned for palliative treatment.

Occurrence of synchronous double primary cancers of RCC and TCC bladder are extremely uncommon. On literature review, we found only 24 cases reported so far with majority of cases reported from japan [1]. According to diagnostic criteria proposed by Warren., *et al*. for the diagnosis of multiple primary malignant neoplasm every tumor must be malignant and histologically distinct from each other and there should be no metastatic link between the two neoplasms [5].

To the best of our knowledge this is first case of metastatic renal cell carcinoma with synchronous primary bladder malignancy. There is no standard management described in the literature for this condition. Hence this case is being presented due to its diagnostic challenge, unusual presentation and rarity.

Figure 1: RCC with adrenal metastasis 300.

Figure 2: Synchronous bladder carcinoma.

Learning points

- Multiple primary malignant neoplasms are characterized by the coexistence of two adjacent but histologically distinct malignant tumors.
- Though rare but possibility of synchronous double malignancy at the time of presentation should be considered by the clinician in patients with suspicion of malignancy.
- There is also a pressing need to establish evidence-based guidelines for the management of patients with such double primary malignancy.

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