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Bilateral Renal Metastasis after Chemo-Radiotherapy in Squamous Cell carcinoma of Esophagus: A Case Report.

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ABSTRACT

Carcinoma esophagus is one of the most common malignancies in J&K following carcinoma stomach. The cancer pattern in Kashmir resembles that of caspian esophageal cancer belt than main land India. This is due to unique geographical location, cultural and food habits such as salty tea, spicy food, dried vegetables. In spite of such a high burden of esophageal malignancies in J&K where Squamous pathology is predominant, no literature mentions renal metastasis in esophageal carcinoma. We report a first of its kind case of a 55y old male who developed bilateral renal metastasis after undergoing chemo radiotherapy at a tertiary care institute in Kashmir.

Keywords: Squamous cell carcinoma, cancer belt, Kidney, metastasis.

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INTRODUCTION

Particularly when the primary lesion has been treated and kidneys are the only site of metastasis, the kidney metastasis can resemble primary renal carcinoma. Tumors that commonly metastasis to kidneys are lung, breast, head & neck and colon, It is exceedingly uncommon for esophageal carcinoma to metastasize to the kidney.¹.

Esophageal carcinoma is the 8^{th} most common cancer in world with squamous histology forming the bulk (>90%) owing to its incidence in developing countries while as Adenocarcinoma is showing increasing trend in western world ²

Carcinoma oesophagus is the second most prevalent malignancy in Jammu and Kashmir, which is a part of the esophageal cancer belt, with an incidence of 30 to 40%, of which >95% are Squamous cell carcinoma.³ Despite such a high burden of esophageal carcinoma, this is a first reported case of renal metastasis in esophageal cancer patient after chemo-radiotherapy.

Case Report:

The present case is of a 55y old male with no co morbidities and a baseline serum creatinine level of 0.6mg/dl, diagnosed as moderately differentiated squamous cell carcinoma of esophagus at 38 to 41 cm with few subcentimetric gastro hepatic nodes (<8mm) on 30th of march 2022.

He had no distant metastasis on baseline CECT chest, abdomen & pelvis, following which he received 50.4G/25# concurrent with 5 cycles of Paclitaxel and Carboplatin, completed on 20th of May 2022. After due assessment was done in form of CECT chest, abdomen & pelvis, which revealed stable disease as per RECIST criteria and was subsequently taken for 6 cycles of consolidation chemotherapy (Paclitaxel and carboplatin) and was completed on 9th of December 2022. The patient was assessed again in form of 'EGD' which revealed no lesion, however CECT chest, abdomen and pelvis showed hypoenhancing lesions in bilateral kidneys.

In the right kidney it measured 55*56mm and in the left kidney 59*55mm, associated with subtle bulging of renal facia in both kidneys, rest of the thoracic, abdominal and pelvic findings are unremarkable. Sections studied from USG guided biopsy from Right renal mass showed features of well differentiated squamous cell carcinoma with immunohistochemistry positive for CK5/6, consistent with metastatic squamous cell carcinoma.

The patient ultimately developed anuria and is currently on haemodialysis. In view of renal metastasis, patient has been referred to department of urology for possible partial nephrectomy.

DISCUSSION:

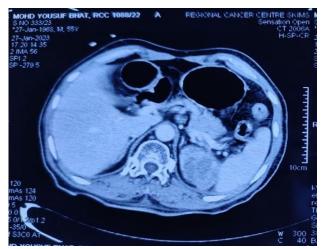
Despite all the advancements in diagnostic and therapeutic fields, mortality in esophageal

cancer remains high, with 5Y OS ranging from 10% to 45% depending on the stage⁴. The common sites for metastasis in esophageal cancers are Lymph node (73%), lungs (52%), liver (47%), bone (10%) and brain (1.5%). Kidneys are rarely detected clinically as site of metastasis since just 33% of patients develop microscopic haematuria, less than 15% develop gross haematuria and renal failure is seen only in case of obstruction or thrombosis. Therefore renal metastasis are mostly diagnosed incidentally⁵

Some differences present between primary and metastatic renal carcinoma include;

- 1. Primary lesions are large compared to metastatic counterparts.
- 2. Metastatic deposits are predominantly subcapsular
- 3. *Clear Cell* type is most common in primary tumors while as squamous cell carcinoma has predominant occurrence in esophageal mestastasis to kidney.
- Taking into consideration histopathology, Clear Cell type is most common in primary tumors while as squamous cell carcinoma has predominant occurrence in esophageal mestastasis to kidney.

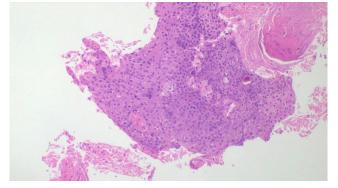
As carcinoma esophagus with renal metastasis is an extremely rare entity, no standard treatment has been established as of now. Neither by European Association of Urology (EAOU) nor by The national comprehensive cancer network (NCCN). (6)



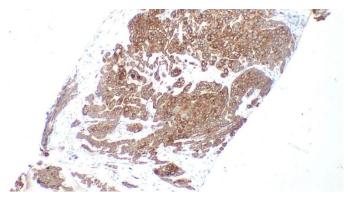
(a) Right renal mass.



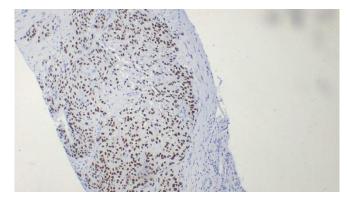
(b) Left Renal mass



(c) HPE



(d) CK positive



(e) P40 positive

CONCLUSION:

A patient presented with CECT images of bilateral renal mass with no other site of metastasis with both EGD and CECT revealing no lesion at primary site. The pathology and IHC show metastatic deposits of Squamous cell carcinoma of esophagus. If there is a history of esophageal cancer and a renal mass is found, metastasis should be assumed unless demonstrated otherwise.

CONSENT

The patient's and his attendants' written informed consent was acquired before the report and its accompanying photos could be published.

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