Original Article

A Rare Case Of Primary Squamous Cell Carcinoma Of Kidney: A Case Report

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Abstract

Adenocarcinomas are the most prevalent kidney neoplasms. Only a few cases of primary squamous cell carcinoma have been reported. It is responsible for 6–15% of all kidney tumors. Majorly found in males as compare to females. This case report is of is of A 65-year-old man with pain on the left side of his abdomen. CT Urography showed the right kidney measuring 11.2 x 4.9 cm and striated nephrogram in initial images with evidence of multiple non enhancing areas with peripheral enhancement, largest measuring 2.2 x 1.2 cm. Mild thickening of the renal pelvis is noted. Presence of diffuse tumor ranging from size 15 x 8 x 7 cm occupying almost whole of the kidney with unattainable origin was observed. Primary renal squamous cell carcinomas are extremely rare tumours that are rarely suspected or identified clinically. It is an important factor to consider while making a diagnosis of kidney tumours.

Keywords- primary squamous cell carcinoma, Adenocarcinomas, renal

INTRODUCTION

Squamous cell carcinoma in its early stages is a rare disorder. Smoking, schistosoma infection, and disorders causing chronic irritation, such as bladder tumours and nephrolithiasis, hydronephrosis, anatomic malformations of the kidney, and chronic recurring infections like pyelonephritis, are all predisposing factors. It can also be linked to mucosal keratinizing squamous metaplasia / dysplasia. Secondary spread of squamous cell carcinoma to another location, such as the cervix, penis, anus, and metastases, as well as urothelial carcinoma with squamous differentiation, should be distinguished.

The bladder is the most prevalent site for primary squamous cell carcinoma, with posterior and lateral wall involvement. The renal pelvis is the second most common site, followed by the ureter. Hematuria and stomach discomfort are common symptoms. Dysuria, urgency, and frequent urination, recurrent urinary tract infection, urinary blockage, and flank or suprapubic pain are all possible symptoms. The prognosis is dismal due to the delayed diagnosis. This case describes an accidental diagnosis of squamous cell carcinoma of the renal pelvis following nephrectomy for a persistently infected, non-functioning kidney.

CASE REPORT

A 65 year old male presented to surgery OPD, AVBRH Sawangi Meghe Wardha with complaints of pain over the left side of abdomen since 2 months. The pain was insidious in onset, gradually progressive in nature and radiating towards the back. He also complains of one episode of projectile vomiting. There is no history of fever, any bowel and bladder symptoms. He had same episodes thrice in past which was managed conservatively and recently he is on ayurvedic treatment. Hematological examination showed normocytic hypochromic RBCs, other biochemical and serological examination was in normal limits.

CT Urography showed the right kidney measuring 11.2 x 4.9 cm and Striated nephrogram in initial images with evidence of multiple non enhancing areas with peripheral enhancement, largest measuring 2.2 x 1.2 cm. Mild thickening of the renal pelvis is noted. Shows normal excretion on contrast studies. Evidence of mild perinephric stranding is noted and there is focal partial filling defect of approximately 12 x 6 cm in the right renal vein at the hilum. Features of pyelonephritis is noted in the right kidney. The left kidney was enlarged, and numerous calculi may be seen in all the calyces. At the left renal hilum and in the course of the ureter, there were many non-enhancing hypodense regions connected with multiple

peripherally enhancing lymph nodes with fat strandings. Patchy hypodensity is seen in the lower pole of the right kidney, along with a hypodense medullary pyramid.

Nephrectomy the gold standard procedure and was carried out in the following case.

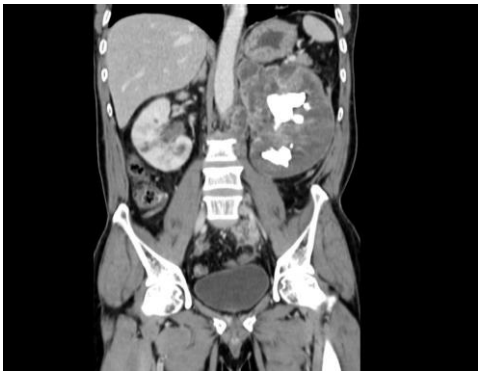

Fig 1: CT Urography

GROSS EXAMINATION

Received already cut open sutured left nephrectomy specimen measuring 16.5 x 10 x 8 cm with attached ureter measuring 4 cm in length. Presence of diffuse tumor ranging from size 15 x 8 x 7 cm occupying almost whole of the kidney with unattainable origin was observed. On cut section, large greyish white, necrotic and hemorrhagic areas are seen along with large staghorn calculi measuring 8 x 6 x 4 cm. Multiple calculi identified (approximately fifteen).

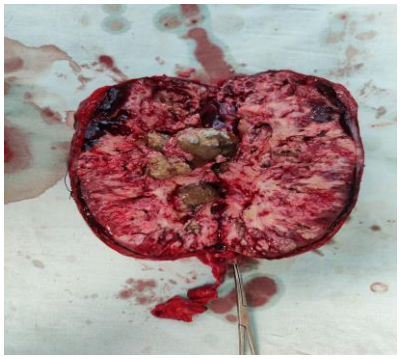

Fig 2 shows gross image of large exophytic bulky tumor; has tan-white coloration And necrotic with flaky keratin material on the surface

MICROSCOPIC EXAMINATION

The sample was cut into many slices and stained with Hematoxylin and Eosin, revealing big, round to polygonal cells grouped in cords and sheets. There are numerous keratin pearls to be found. It also reveals poorly differentiated renal pelvis squamous cell carcinoma invading the renal parenchyma and perinephric fat, with significant necrotic regions inside tumour islands. Atypical squamous epithelial cells are also visible in tumour tissue. Within the tumour islands, there are still some renal tubule cells visible.

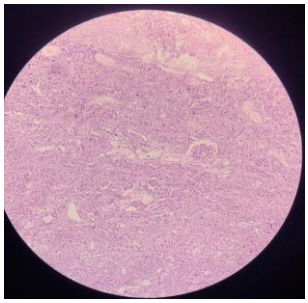

Fig 3 shows keratin pearls

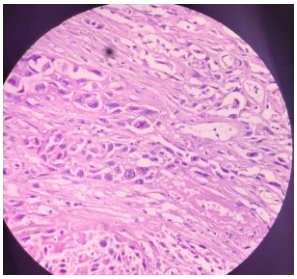

Fig 4 shows poorly differentiated squamous cell carcinoma with focal single keratinization.

DISCUSSION

SCC of the kidney is rarely diagnosed or detected prior to surgery because to its rarity and absence of specific signs, symptoms and radiological abnormalities. Symptoms include microscopic or macroscopic hematuria, flank pain, fever, weight loss and, or a palpable abdominal mass. Because SCC has been associated to paraneoplastic disorders like hypercalcaemia, leukocytosis, and thrombocytosis, it's frequently discovered in its latter stages (pT3 or more). The prognosis is bleak, with only a 10% chance of surviving after five years. There is no established treatment plan for patients with primary renal SCC at the moment. The major treatment modality has been surgery, either a radical nephrectomy or a nephroureterectomy.

The majority of people with loco-regional cancer have misdiagnosed lymph nodes. The prognosis of patients who received cisplatin-based adjuvant chemotherapy and/or radiotherapy was not improved. Postoperative radiation has not been found to benefit survival in patients with malignancies of the upper urinary tract. Adjuvant chemotherapy appears to have some advantages.

CONCLUSION

Primary renal squamous cell carcinomas are extremely rare tumours that are rarely suspected or identified clinically. It is an important factor to consider while making a diagnosis of kidney tumours. To achieve timely and proper patient therapy, these tumors require comprehensive clinicopathological and radiographic correlation, as well as a high index of suspicion and a broad differential diagnosis. It is clear that kidney stones must be treated as soon as possible in order to avoid this rare but deadly consequence.

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