



Primary Squamous Cell Carcinoma of Horse shoe Kidney - A Case Report

KEYWORDS

Dr. Anand P Zingade

Assistant Professor General Surgery, Department of Surgery, Shrimati Kashibai Nawale Medical College, Narhe, Pune-411041

Dr. Shashikant R Bhangre

Assistant Professor General Surgery, Department of Surgery, Shrimati Kashibai Nawale Medical College, Narhe, Pune-411041

Dr. Avinash R. Joshi

Professor & HOD of Dept. of Pathology, Department of Pathology, Shrimati Kashibai Nawale Medical College, Narhe, Pune-411041

Dr. Nikhil K. Rane

Senior Resident Doctor, Department of Surgery, Shrimati Kashibai Nawale Medical College, Narhe, Pune-411041

Dr. Neha C. Bhatt

Assistant Professor Pathology, Department of Pathology, Shrimati Kashibai Nawale Medical College, Narhe, Pune-411041

ABSTRACT Primary Squamous cell carcinoma of the kidney is a very rare clinical entity. The lack of characteristic presentation like hematuria, pain and palpable mass causes delay in diagnosis. We report a case of this rare tumor present in a horse shoe kidney with calculi and hydronephrosis, treated with nephrectomy.

Introduction

Primary malignancies of the renal collecting system are rare accounting for 4-5% of all urothelial tumors. Most frequently diagnosed cases are the transitional cell carcinoma 85-94% followed by Squamous cell carcinoma 6% to 15% adenocarcinoma 7%. The incidence of primary renal Squamous cell carcinoma of kidney ranged from 0.5%-8%.^[1]

The epithelial lining comprising the renal pelvis, ureter, bladder, and proximal urethra is from transitional cell epithelium. Transitional cell carcinomas (TCCs) make up more than 90% of all urothelial cancers in the United States. Adenocarcinoma (2%), Squamous cell carcinoma (5%-10%), undifferentiated carcinomas (2%), and mixed carcinomas (4%-6%) are other types of urothelial malignancies.^[2]

CASE REPORT:

A 42 year old male patient, labourer by occupation residing at Hattarga Tal: Basv Kalyan Dist : Bidar Karnataka was admitted on 30th day of July 2012 with the presenting complaint of Pain in left loin to groin since 5 – 6 months on and off with no other complaints without any remarkable findings on systemic and per abdominal findings.

He was investigated and Ultrasound examination of abdomen & pelvis found a horse shoe type of renal anomaly with bilateral hydronephrosis with bilateral nephrolithiasis. ? , Possibility of enlarged left Para aortic lymph node.

On further investigating by CT scan of abdomen and pelvis result was: Horse shoe kidney with bilateral renal calculi with obstructive changes with oval non enhancing lesion adjacent to left suprarenal gland? Lymph node ? Adrenal mass.

DTPA scan revealed: non – functioning left kidney with optimal parenchymal function & excretion of right kidney.

So decision taken to operate on right kidney first and right PCNL was done. Post operative he made uneventful recovery and was advised discharge and to be followed up after 2 weeks for left nephrectomy i/v/o non functioning kidney with adrenal mass..

Further patient came on 17th day of Sept 2012 with palpable

left kidney and got operated on 4th day of Oct 2012. The surgery was performed and it was found that an enlarged left kidney of size large wet coconut with hard consistency but smooth counter with difficulty in identifying ureter and renal vessels, with minimal adhesion between surrounding structures however left subcapsular nephrectomy was performed with much difficulty considering xanthogranulomatous pyelonephritis, intra operative pus was extruded from renal pelvis suggest pyonephrotic kidney' During post operative period patient made uneventful recovery and histopathological analysis revealed well differentiated Squamous cell carcinoma of left kidney Figure-1 . Patient was asked to follow up after a week but he came to follow up after 6 weeks with pain in abdomen and large immobile lump in left abdomen with cachexia USG revealed large retroperitoneal mass. The patient was referred to tumor board and patient was lost to follow up.

Discussion:

Squamous cell carcinoma of the urinary tract is more frequently reported in urinary bladder and male urethra, in it is rarely encountered in renal pelvis.^[3,4] The etiological factors which play in the genesis of this rare malignancy are strongly associated with phenacetin consumption, chronic renal calculi, pyelonephritis and Squamous metaplasia.^[4] Li MK et al in their study reported incidence of coexisting renal stone in 100% cases.^[5] Urinary calculi was accepted as a main carcinogenic risk factor Squamous cell carcinoma.^[4] Chronic irritation and infection are believed to induce reactive changes in the urothelium and leads to neoplasia via metaplasia and leucoplakia.^[4] Stag horn calculi are most frequently associated with renal pelvis Squamous cell carcinoma.^[4]

SCC of renal pelvis is often associated with chronic inflammation & leukoplakia as a result of stone.^[6]

In our case the Squamous cell carcinoma of kidney is associated with an impacted black hard calculus at renal pelvis extending into the ureter and Squamous cell carcinoma is found in horse shoe kidney.

Conclusion:

Squamous cell carcinoma of the renal pelvis and ureter is a rare entity and is an aggressive tumor, throughout medical

literature. As these tumors are strongly associated with renal stones, the patients with renal stones and non-functioning kidney should be carefully examined with newer imaging modalities and biopsy from the renal pelvis or calyceal wall should be considered during the treatment of stone disease, in patients having long-standing history of large renal calculi or stag horn calculus for early detection of the tumor. In the present case the Squamous cell carcinoma was associated with horseshoe kidney and stag horn calculus so such cases are susceptible of harboring occult or overt malignancy and warrants aggressive treatment with surgery.

Figure:

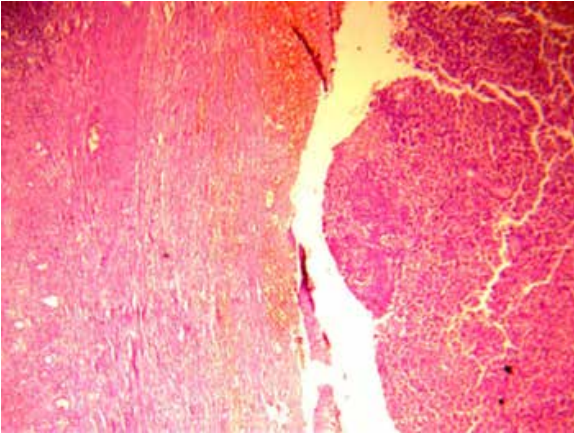


Figure: 1: Photomicrograph showing Squamous cell carcinoma

REFERENCE

- 1.P. Kaur, A. Chauhan, G. Singh, S. Kataria, R. Kalra: Primary Squamous Cell Carcinoma Of Kidney - A Case Report And Review Of Literature.. The Internet Journal of Nephrology. 2010 Volume 6 Number 1. . | 2. Sabiston Textbook of surgery 18th edition vol. 2 section XIII, pg.2275
3. Karabulut A, Emir L, Gonultas Nl et al. Squamous cell | carcinoma located in the renal caliceal system: A case report and review of the literature. Turkish J of Cancer2002; 32(1):20-4. | 4. Odabas O, Karakok M, Yilmaz Y, etal. Squamaous cell carcinoma of kidney. Eastren J of Medicine 2000; 5(1):35-6. | 5. Li MK, Cheung WL. Squamous cell carcinoma of the kindey. J Urol 1987; 138:269-71. | 6. Bailey and Love's Short practice of surgery 26th edition page.1307\