

Squamous Cell Carcinoma (SCC) involving Kidney with multiple renal stones- A rare case report
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**Squamous Cell Carcinoma (SCC) involving Kidney with multiple renal stones-
A rare case report**

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ABSTRACT

Introduction: Squamous Cell Carcinoma involving Kidney constitute 1.4% of all renal malignancies. It is frequently associated with staghorn stones and palpable flank mass. Diagnosis is usually confirmed by histopathologic examination of specimen. We herewith present a case of squamous cell carcinoma involving the kidney in association with multiple renal stones.

Case Report: Here we present a case of 61 years old male present with flank mass and pain.

Conclusion: Squamous cell carcinoma involving kidney is rare entity because of non-specific signs and symptoms, Nephrectomy is the treatment of choice. In present case Squamous cell carcinoma involving kidney detected in a male patient with excellent post treatment outcome.

Key words: kidney, renal stones, Squamous cell carcinoma

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Conflict of Interest: None

INTRODUCTION

Squamous Cell Carcinoma involving Kidney constitute 1.4% of all renal malignancies.¹ Very few cases of Squamous cell carcinoma involving kidney have been reported in the world literature.

The insidious onset of symptoms and lack of pathognomonic signs leads to delay in diagnosis and treatment. Squamous cell carcinoma involving kidney is frequently associated with staghorn stones and palpable

flank mass. In this case kidney is also studded with multiple stones of variable size and shape.

CASE REPORT

A 65 year old male presented with pain in right flank region since last 15 days. There were no associated symptoms. On examination of abdomen shows a palpable mass in right flank region and it is firm in consistency and non-tender.

Radiology Investigation:

CT scan of abdomen shows an enhancing mass involving upper and mid pole of right kidney with extension to pelvis measuring 6.3x5.4x5.3 cms. Multiple stones with Renal vein thrombosis is also evident.

Pathology findings:

Gross examination of Right Nephrectomy specimen shows an Infiltrative

Growth involving almost entire Kidney with extension to Adrenal Gland and Renal pelvis. Tumor measure 9.5x5.5x5.0 cms in size. Multiple renal stones were also evident varying from 0.4 to 2.1 cms in size and irregular in shape. (Figure-A)



Figure A: Gross photograph of the nephrectomy specimen showing a mass involving entire kidney.

Many tissue bits from tumor and other representative area and surgical margins were submitted for Histopathology examination.

Microscopic examination shows Well to Moderately Differentiated Squamous Cell Carcinoma involving Right Kidney, Nuclear grade 2. Tumor extend to involve Renal

Capsule, Adrenal Gland and Perinephric fat. Cut ends of Renal Vein, Renal Artery and Ureter are free of tumor. (Figure B&C)

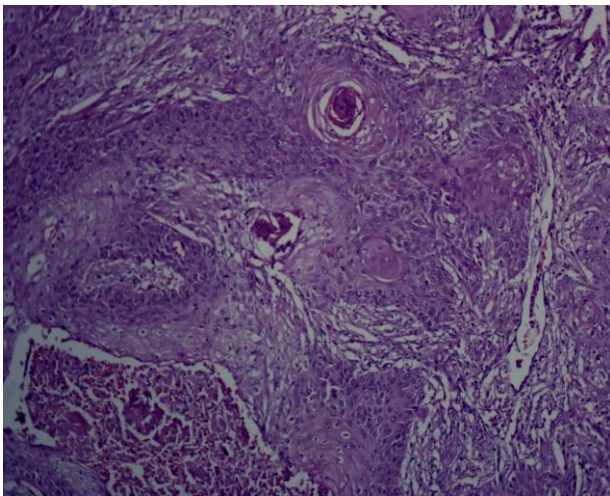


Figure B (Hematoxylin and Eosin, ×10)

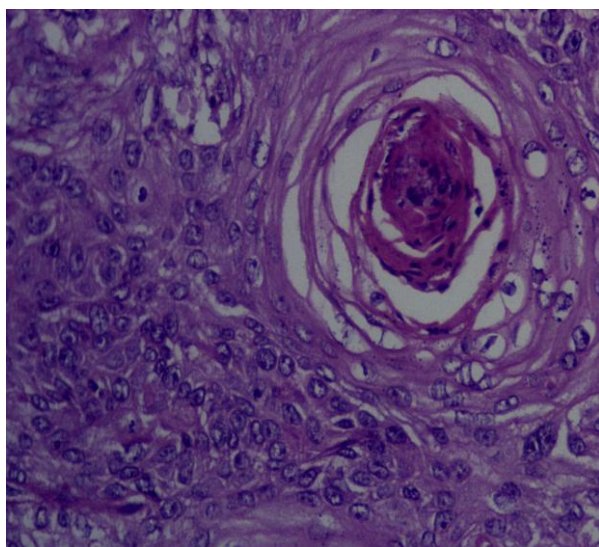


Figure C: Photomicrograph showing areas of squamous differentiation with keratin deposition. No urothelial component is visible (Hematoxylin and Eosin, ×40)

DISCUSSION

Squamous cell carcinoma involving kidney is presumed to be arising from squamous metaplastic epithelium which may be secondary due to chronic irritation by renal stone.

A significant urothelial component should be absent for the diagnosis of renal SCC. Such tumors should be classified as urothelial carcinoma with squamous differentiation. The squamous component here is not different from other SCCs and shows keratin pearls, intercellular bridges, and keratocellular debris. Stage by stage, they tend to have the same prognosis as urothelial cancers, although they tend to present at a more advanced stage.

Diagnosis is usually confirmed by histopathologic examination of specimen. Insidious onset of disease and lack of pathognomonic signs and symptoms may delay the diagnosis.

Surgery has been the traditional mainstay of therapy for renal SCC, with adjuvant therapy only of marginal benefit.

SUMMARY AND CONCLUSION

Squamous cell carcinoma involving kidney is rare entity because of non-specific signs and symptoms. Most of patient present with advance disease.⁴

In this case Renal stone may be pathogenetic factor for development of tumor. Renal stone cause chronic irritation and it may lead to squamous metaplasia, which become nidus for development of Squamous cell carcinoma.

It is debatable issue as far as this case ,wheather one should consider it as a primary Squamous cell carcinoma of kidney because it is likely that this tumor can be spread of primary Squamous cell carcinoma of renal pelvis to involve kidney.^{2,3}

Nephrectomy is the treatment of choice. Adjuvant chemotherapy or radiotherapy is indicated in metastatic disease. In present case Squamous cell carcinoma involving kidney detected in a male patient with excellent post treatment outcome.

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