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Case Report of Primary Adenosquamous Carcinoma of Kidney – A Rare Entity

KEYWORDS: Adenosquamous Carcinoma, Kidney, Pyonephrosis, nephrectomy

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ABSTRACT *Renal Cell Carcinomas are the most common neoplasms of kidney and account for 90% of the renal tumors and 3% of all adult neoplasms. Upper urinary tract Transitional call carcinomas occur in 5% of all urothelial carcinomas. Upper Urothelial TCC can have adeocarcinoma and squamous cell carcinoma variants. Chronic irritation, diabetes and use of analgesics are frequently associated with squamous cell carcinomas. Complete radical resection is the only treatment which has proven to be effective. Adenosquamous carcinomas have poor prognosis and most of them are likely to be invasive at the time of detection. We describe a case of Adenosquamous carcinoma of kidney which is the rarest of rare renal carcinoma and till date only 7 cases have been reported in literature.Our patient presented with pyonephrosis of left kidney and after investigation underwent a radical left nephrecctomy. His HPE report was conclusive of Adenosquamous carcinoma of Kidney. The patient was discharged 10 days after the surgery and followed up regularly for a period of 6 months.*

Introduction

Renal Cell Carcinomas are the most common neoplasms of kidney and account for 90% of the renal tumors and 3% of all adult neoplasms. Upper urinary tract Transitional cell carcinomas occur in 5% of all urothelial carcinomas.[1] Upper Urothelial TCC can have adenocarcinoma and squamous cell carcinoma variants. Primary Adenosquamous carcinoma of kidney is a rare condition.[2] Secondary adenosquamous carcinoma of kidney is because of metastasis to kidney from lungs, pancreas.[3]

We present a case of 65 year old male who was referred to us as a case of Left pyonephrosis with left renal calculus. On admission the patient had fever, pain in left lumbar region. There was no hematuria. Patient had no major illness like Diabetes or Hypertension. Patient was operated 15 years back for left inguinal hernia. The patient had pulse rate of 90/min and blood pressure of 110/90 mm of Hg. On examination the patient had no palpable lump but only tenderness in left lumbar region. On investigations patient had leucocytosis with count of 12900/cmm and hemoglobin level of 10.2 gm%. He had deranged renal function test, with urea level of 53 mg/dl and creatinine level of 1.8 mg/dl. Urine routine showed trace proteins, significant pus cells but no hematuria. Urine culture sensitivity test reported enterococcus species which were sensitivity to nitrofurantoin and tetracycline. His ultrasound abdomen and pelvis examination suggested an enlarged, hydronephrotic kidney of size 10x8x6 cms with multiple internal echoes and a staghorn calculus of size 4.7x1.6 cms. There was a calculus in prostatic urethra. Foleys catheterization was unsuccessful but we did not do a suprapubic catheterization because the patient was passing urine per urethrally. The patient was given intravenous piperacillin and tazobactum with nitrofurantoin after calculating the creatinine clearance value. We did an USG guided percutaneous nephrostomy through which there was an urine and pus drainage of 100 to 200 ml urine per day.

Over 2 days the patient had improvement in his renal functions which came to within normal range. We did his Contrast enhanced CT scan which reported a severely hydronephrotic left kidney of size 11x9x6 cms with a large staghorn calculus of size 4.9 x 1.8 cms. The renal parenchyma was thinned to thickness of 3 mm. It also had multiple small calculi in interpolar and lower calyces. There was significant perirenal thickening with involvement of left psoas and lateral abdominal wall muscles.

Image 1 here

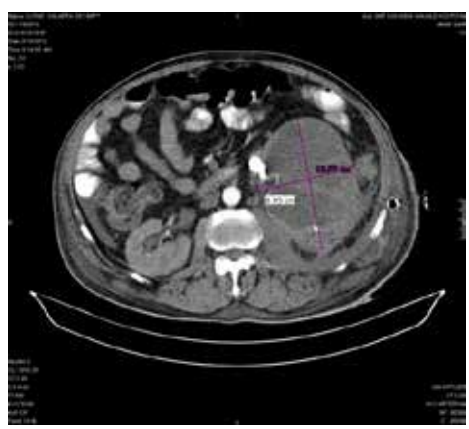

Image of CTscan abdomen and pelvis showing hydronephrotic , poorly functioning left kidney.

We also did his DTPA renal scan which showed a hydronephrotic obstructed left kidney with severly compromised renal function with GFR of 5 ml/min.

Because of the decreased urine output from the PCN stent and poor GFR as reported on DTPA scan we decided to do left nephrectomy. We decided to do nephrectomy using an intrabdominal approach as we anticipated dense adhesions. Intraoperatively we found dense adhesion between left kidney and descending colon which could not be separated hence we removed a part of descending colon with the left kidney. We also did suprapubic cystostomy to remove the prostatic urethral calculus.

The patient was on intravenous broad spectrum antibiotic post operatively for 7 days. The abdominal drain was removed on 5th day post operatively after starting him on oral diet. Post operatively the patient had normal renal function tests and leucocyte counts.

The Histopathology report of the specimen on microscopic examination revealed renal parenchyma along with tumor. The tumor consisted of large cells with pleomorphic nuclei. Some of them showed prominent nucleoli. The cells were arranged in glandular pattern. At places they were in papillary

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pattern. There was abundant mucin noted within cells and outside. At other places the tumor cells were large, polyhedral and arranged in sheets and nests. Individual cell keratinization was seen and keratin pearls were also noted. Section from the removed colon showed normal colonic mucosa but infiltration of tumor cells in serosa and muscle layer. The section from the ureter showed tumor emboli. All these findings suggested a primary renal adenosquamous carcinoma.

Post operatively the patient recovered well and was discharged on day 10. He was asked to follow up with a medical oncologist for further treatment.

Discussion-

Primary Adenosquamous carcinoma of kidney is a rare condition and according to our research only 7 cases have been reported so far in literature.[2,4,5,6] Secondary adenosquamous carcinoma of kidney is because of metastasis to kidney from lungs, pancreas.[3]

Chronic obstructive uropathy, chronic pyelonephritis and renal calculus of long duration are considered to be responsible for squamous metaplasia. Squamous cell cancers are up to six times more frequent in renal pelvis than in lower ureter and are likely to be invasive at the time of detection. In our case the HPE report was suggestive of adenosquamous carcinoma with features of glandular pattern with mucin as well as keratin pearls and individual cell keratinization. The HPE report also suggested that the malignancy was invasive in nature as it had spread loco regionally involving the serosal and muscularis layer of the descending colon. Our patient had no distant metastasis.

We conclude that adenosquamous carcinoma of kidney is a rare diagnosis but it should be considered in all cases of renal mass as early diagnosis and treatment with regular follow up will help the patient to achieve complete cure.

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