

Primary squamous cell carcinoma kidney: A rare case report

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ABSTRACT

Primary squamous cell carcinoma (SCC) of the kidney is a very rare clinical entity. Only a few cases have been reported in world literature. Here we report a case with renal SCC. The patient presented with flank pain, fever and vomiting. In ultrasonography, renal mass was detected and after nephrectomy followed by histopathological examination, it was diagnosed as SCC. It was associated with renal calculi and hydronephrosis. The lack of characteristic presentation like hematuria, pain and palpable mass causes delay in diagnosis results in locally advanced or metastatic disease at presentation.

Key words: Renal; Carcinoma; Squamous cell carcinoma

INTRODUCTION

Primary neoplasms of the renal collecting system are uncommon accounting for only 4% to 5% of all urothelial tumours. The transitional cell type is the most frequently diagnosed (85%-95%) followed by squamous cell carcinoma (6%-15%) [1]. Squamous cell carcinoma of the renal pelvis is a rare tumour. The incidence of this tumour is 1.4% of all renal malignancy [2]. Primary renal squamous cell carcinoma is a very rare tumour and few cases have been reported in world literature [3].

CASE REPORT

A 68 year old female patient presented with complaints of pain in the right flank pain for 2 month. Fever and chills for 15 days. Physical examination was unremarkable. Routine haematology revealed neutrophilic leucocytosis and moderate degree of normochromic normocytic anemia. Ultrasonography of abdomen and CT showed enlarged right kidney with loss of normal renal architecture and a large mass measuring (5×4.) cm. On gross examination, the kidney was larger in size measuring (11×5) cm.

Cut surface revealed (Fig. 1) Variegated G/W solid areas, thinned out cortex, dilated calyces and a large stone. Growth of tumour was infiltrating in nature.

Histopathological examination revealed features of Well differentiated invasive squamous cell carcinoma with urolithiasis (Fig. 2).

Prior to the study, patient gave written consent to the examination and biopsy after having been informed about the procedure.

DISCUSSION

Squamous cell carcinoma of the renal collecting system is a rare malignancy with poor prognosis accounting for about 10 % of renal pelvic tumors and 0.5 % of all renal tumors [4,5]. They are frequently associated with long standing staghorn calculi, chronic kidney infection, hydronephrosis and analgesic abuse [5]. Hypercalcemia, leukocytosis and thrombocytosis have been reported as a part of paraneoplastic syndromes in RSCC cases [6,7]. Although being nonspecific, a solid mass, hydronephrosis and calcifications are common

How to cite this article: Domblae V, Gundalli S, Prabhu MH, Somil S, Sonali. Primary squamous cell carcinoma kidney: A rare case report. Our Dermatol Online. 2016;7(1):45-47.

Submission: 09.05.2015; **Acceptance:** 13.10.2015

DOI: 10.7241/ourdermatol.2016.1.10



Figure 1: Variegated G/W solid areas, thinned out cortex, dilated calyces and a large stone.

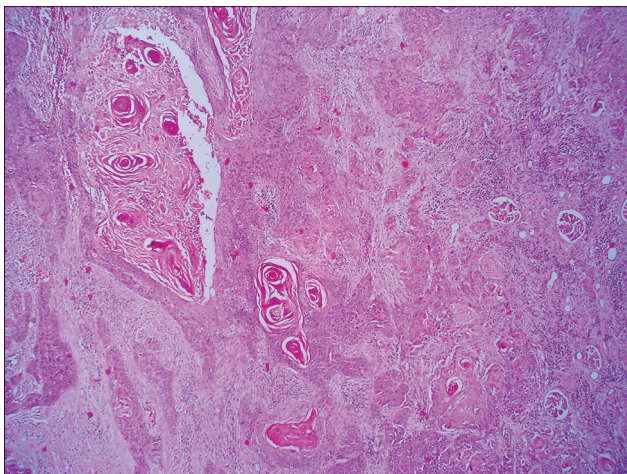


Figure 2: Shows kidney, Glomeruli and nests of squamous cell carcinoma.

radiologic findings, which may explain why the diagnosis could be missed before the histopathological examination.

In a series of 4 patients with squamous cell carcinoma of renal pelvis, mean age was 60 yrs. M: F was 3:1, right to left side ratio was 1:1 and most common presenting symptom was flank pain and haematuria. In 100% of cases, there was presence of staghorn type of renal stones [8].

Renal pelvic tumours are almost never palpable clinically, however they may block the urinary out flow and lead to palpable hydronephrosis.

Hydronephrosis is more common in renal tumour than renal pelvic ones². In 50% of renal pelvic tumours there is preexisting or concomitant bladder urothelial tumour [9].

In general, these tumours are highly aggressive and are at high stage when detected. Most of them are histologically high grade and outcome is generally unfavorable. Extensive infiltration of the renal parenchyma and retroperitoneal soft tissues are very common [10]. In one series, 84% of the tumour were found at operation to be locally advanced or metastatic [11]. The prognosis was very poor. The current primary treatment of renal squamous cell carcinoma is nephrectomy with or without ureterectomy³ followed by radiotherapy and chemotherapy.

In the present case the patient was 68 yrs old, presented with flank pain, fever and chills. Associated etiological factors like Calculi and hydronephrosis were detected.

Grossly, infiltrative pattern of tumour mass occupied most of the renal parenchyma was seen. So the origin of the tumour was from renal parenchyma not from renal pelvis.

CONCLUSION

Squamous cell carcinoma of urothelial tract particularly renal pelvis is thought to arise through a process of metaplasia of urothelium. Various etiological factors are responsible for squamous metaplasia and subsequent carcinoma.

Consent

The examination of the patient was conducted according to the Declaration of Helsinki principles

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Source of Support: Nil, **Conflict of Interest:** None declared.