

Case report

Incidental finding of rare mucinous carcinoma of renal pelvis in post nephrectomy specimen of pyonephrotic non functioning kidney

ABSTRACT- Primary mucinous adenocarcinoma of renal pelvis is very rare and difficult to diagnosed preoperatively due to lack of specific symptoms and radiological finding. We are reporting a case of 52 year old man diagnosed with pyonephrosis with renal stone underwent percutaneous nephrostomy (PCN) initially later on open simple nephrectomy was diagnosed primary mucinous adenocarcinoma of the renal pelvis in histopathology. Post op serum CEA and CA19.9 levels were normal. By assessing a literature review we recommend that careful history taking, tumor markers and CT scans may improve the diagnostic accuracy

INTRODUCTION- The transitional cell carcinoma of renal pelvis is common subtype, which accounts 90% of cases.[1] Renal pelvis adenocarcinoma accounts less than 1% cases which is subclassified as tubulovillous (71.5%), mucinous (21.5%) and papillary non-intestinal (7.0%).[2,3] Primary mucinous adenocarcinoma of renal pelvis is rare and often discovered accidentally by nephrectomy. First reported in 1960 and till date fewer than 100 cases reported.[4,6] It is related to chronic irritation such as stone, infection, inflammation and obstruction.[5] It is difficult to diagnose before surgery without characteristic symptoms or specific radiological features. Also, because of its rarity, no standard treatment protocols has been proposed. We are reporting a case of mucinous adenocarcinoma of renal pelvis presented with feature of calculus and pyonephrosis.

CASE PRESENTATION- 52 years old male patient presented to our hospital with Left flank pain & fever for 20 days. On examination vital stable, Hemoglobin/Total Leucocyte Count/Serum Creatinine were 9.3g/dl /13k/ μ l /1.01lakh/ μ l, Ultrasonography abdomen- s/o

pyonephrosis with multiple renal stone with perinephric collection. CT urography(fig 1)- LT kidney multiple calculus with grossly dilated pelvicalyceal system (PCS) with mild perinephric collection , no contrast excretion. RT kidney normal. Patient underwent percutaneous nephrostomy (PCN) and 500ml Purulent fluid was drained. PCN kept for 2 weeks later on underwent DTPA scan which showed non functioning same kidney. We performed an open simple nephrectomy via flank approach.(fig2)He was diagnosed as renal pelvis primary mucinous adenocarcinoma in histopathology report.(fig3)

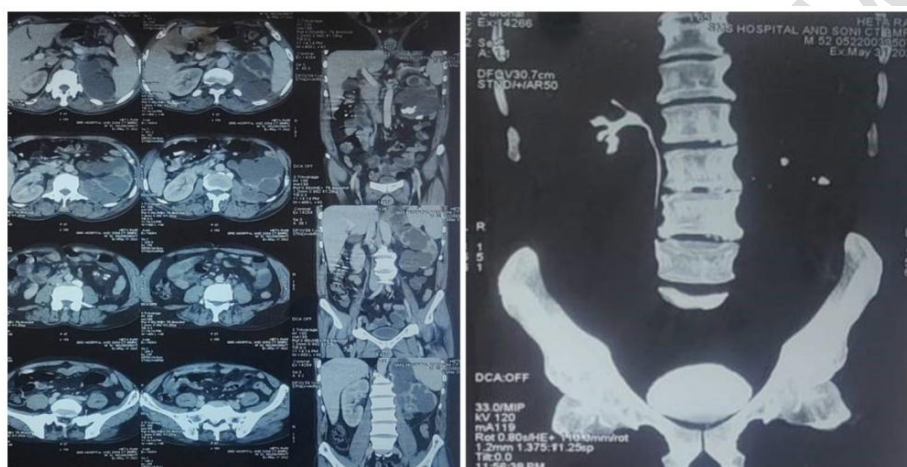


Fig1.- CECT Abdomen & Urography -LEFT DILATED PCS WITH CALCULUS & PERINEPHRIC COLLECTION WITH NON EXCRETION OF CONTRAST

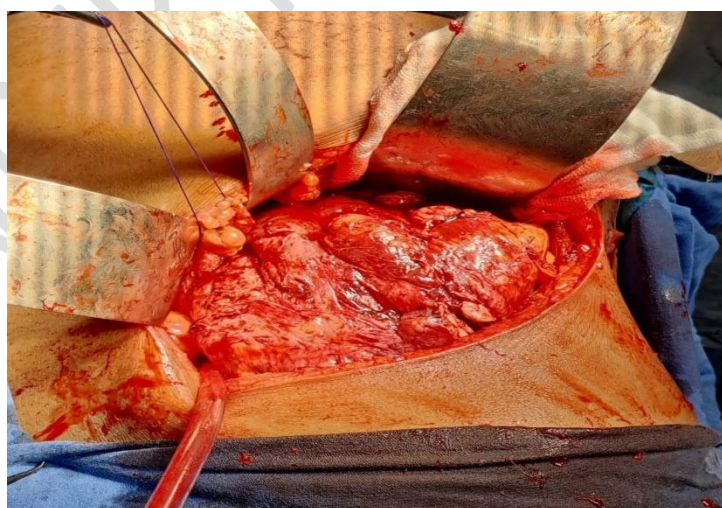


Fig2.-INTRA-OPERATIVE IMAGE OF NEPHRECTOMY

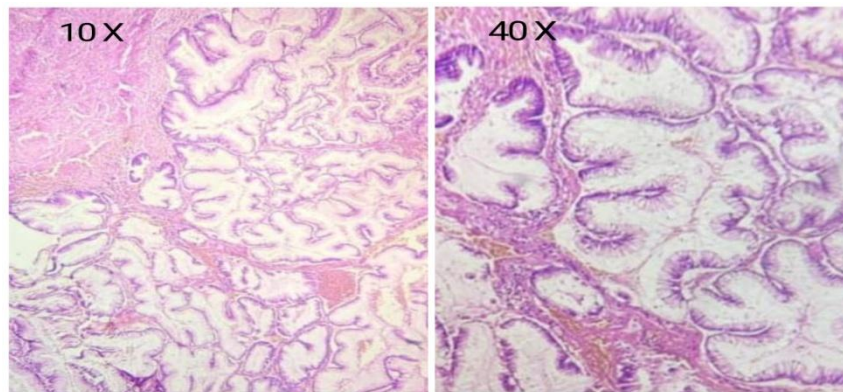


Fig3.-HPE IMAGE -WELL DIFFERENTIATED MUCINOUS ADENOCARCINOMA OF RENAL PELVIS STAGE- pT3NxMX(AJCC2017)

FOLLOW UP- Post operative patient underwent serum CEA and CA19.9 levels which were normal levels Patient refused for chemotherapy and presently on regular follow up

DISCUSSION- Mucinous adenocarcinoma of renal pelvis is rare disease, discovered mainly in asian population. Most adenocarcinomas are of high grade and invasive at presentation. No proper specific protocols has been proposed for renal mucinous adenocarcinoma. Early radical surgery appears to be the best option however the misdiagnosis with benign renal tumor, cyst or pyonephrosis may lead to delayed treatment and serious consequences.[7] CEA and CA19-9 may act as independent markers for prognosis and recurrence, however there can be normal in some cases.[8] The images of CT & MRI are not specific & almost confirmed accidentally in pathological specimen. The standard of care is radical nephroureterectomy. The role of adjuvant chemotherapy and radiotherapy is controversial. These tumour are aggressive and has a poor prognosis. Early diagnosis is an important with pre operative CEA levels, CT scan and high level of suspicion help in diagnosis and treatment

CONCLUSION- Primary mucinous adenocarcinoma of the renal pelvis difficult to diagnose preoperatively. Thus, still when the patient having prolonged stone impaction with associated hydronephrosis or pyonephrosis. We should keep high suspicion. Early operation is the main effective therapy.

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