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A Rare Presentation of Renal Cell Carcinoma: A Case Report.

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ABSTRACT

Renal cell carcinoma with higher grade and with invasion to peripheral structures usually will have a symptomatic presentation, while in our case we present a 63 yr old female who had come to our hospital for her routine master health check up and was diagnosed to have a left renal mass in the ultrasound and had undergone nephrectomy and specimen was sent for histopathology and the diagnosis was confirmed with Haematoxylin And Eosin staining and immunohistochemistry was done using Inhibin to differentiate between Adrenocortical Carcinoma and renal cell carcinoma , since Inhibin was negative the diagnosis was confirmed as Renal Cell Carcinoma Clear Cell Type.

Keywords: Renal Cell Carcinoma with assymptomatic history

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INTRODUCTION

Renal cell carcinoma originates in the lining of proximal convoluted tubule. It is a most common type of kidney cancer in adults, responsible for approximately 90-95% of cases [1]. The body is remarkably good at hiding the symptoms and as a result people with renal cell carcinoma have advanced disease by the time it is discovered [2]). Renal cell carcinoma is also associated with a number of paraneoplastic symptoms which are conditions caused by either harmones produced by the tumour or by the body's attack on the tumour and are common in about 20% of cases with renal cell carcinoma [2]. The most common PNSs seen in people with RCC are: anemia (due to an underproduction of the hormone, erythropoietin), high blood calcium levels, polycythaemia (the opposite to anemia, due to an overproduction of erythropoietin), thrombocytosis (too many platelets in the blood, leading to an increased tendency for blood clots and bleeds) and secondary amyloidosis.[3] Where the cancer has not metastasised (spread to other organs) or burrowed deeper into the tissues of the kidney the 5-year survival rate is 65-90% [3], but it is considerably lower when metastasis occur. When RCC metastasises it most commonly spreads to the lymph nodes, lungs, liver, adrenal glands, brain or bones [3].

Case presentation:

63 year old female who was asymptomatic had ultrasound abdomen done during her master health checkup it shows echo-dense area in left renal region, suggestive of renal tumor. She also gave a history of recent loss of appetite and some weight loss. She complains of urinary symptoms occasionally .On examination she looked pale. A mass was palpable in the left lower quadrant and lumbar region. Liver and spleen were not palpable. Her pulse rate was 110/minute, BP 110/80 and temp 39.6 degree Centigrade. CT abdomen also revealed a left mass. Patient underwent left nephrectomy and the specimen was sent to the pathology department.

Gross

The nephrectomy specimen measured 9x5x4cm with nodular external surface and capsule was intact. Adrenal was sent along with the specimen which measured 3x3x2cms.The cut surface showed lot of cystic and necrotic areas.fig 1.

Figure 1: Gross image ofnephrectomy specimen

Microscopic features:

Haematoxylin and eosin sections showed compressed normal renal tissue (fig2). With a tumor area composed of clear cells (fig 3), along with cystic area, tumor emboli and areas of necrosis.

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Capsule, (fig4) perinephric fat (fig 5), adrenal invasion (fig 6) was present. Immunohistochemistry was done inhibin was used to differentiate it from adrenal cortical tumor, inhibin was negative and hence the diagnosis was clear cell carcinoma of kidney. Furhman's nuclear grade-4.

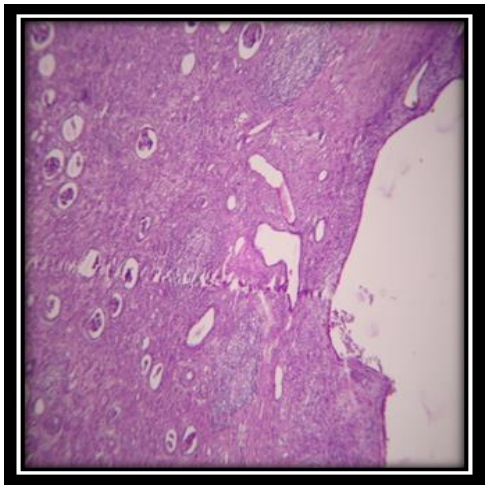

Figure 2: Compressed normal renal tissue

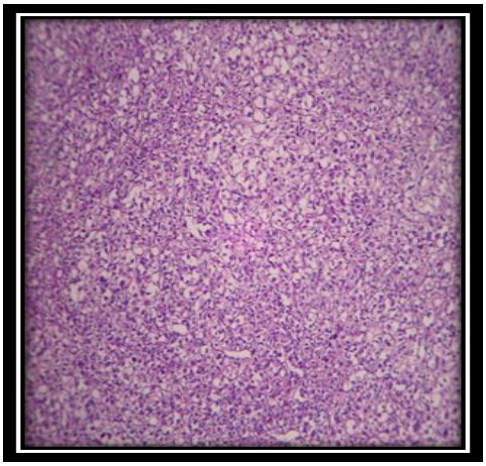

Figure 3: Tumour area showing clear cells withprominent nucleoli

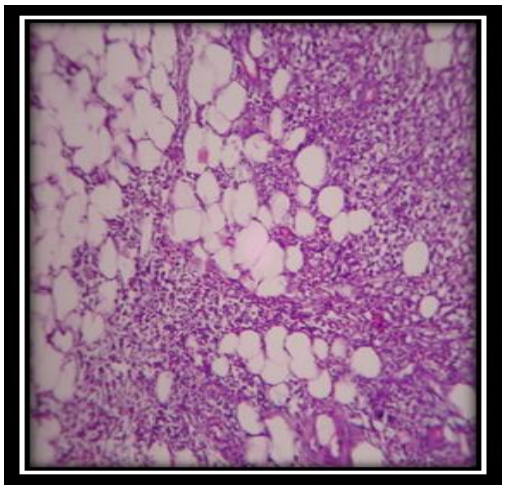

Figure 4: Perinephric fat and capsule penetration

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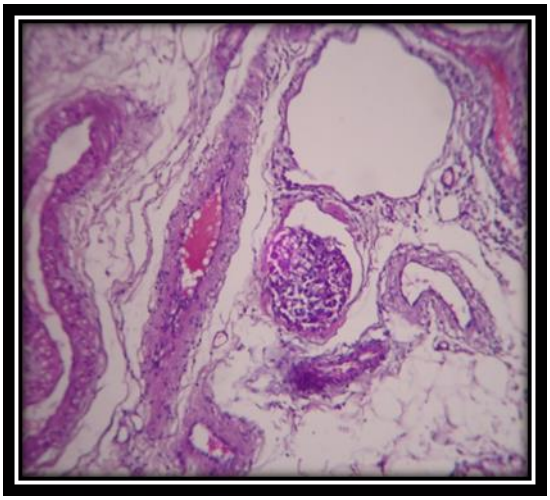

Figure 5: Tumour emboli

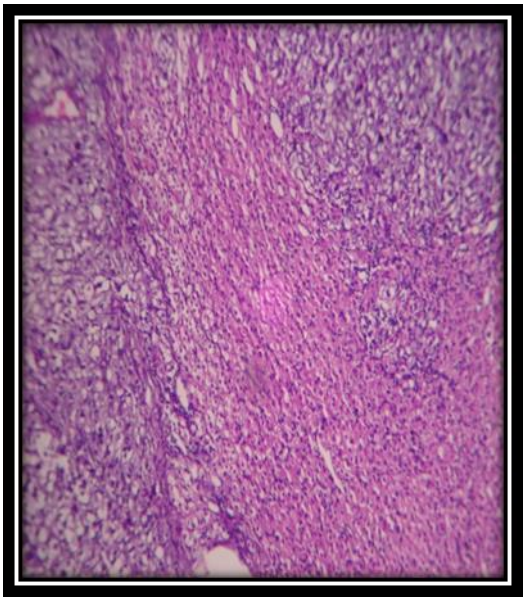

Figure 6: Adrenal involvement

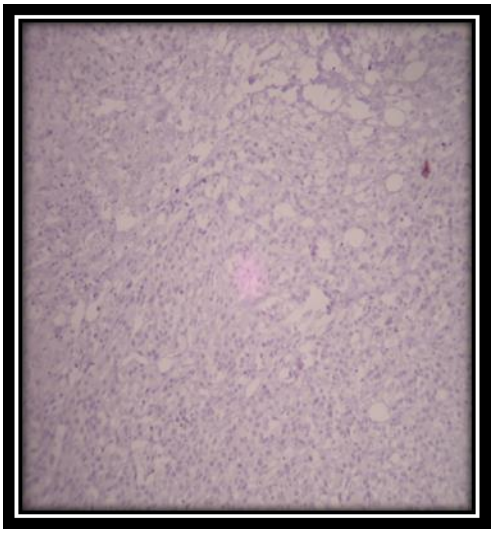

Figure 7: Inhibin negative

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DISCUSSION

Malignant neoplasms involving the kidney may be primary or secondary tumors. Although metastatic lesions outnumber primary tumors, secondary renal neoplasms are usually clinically insignificant and are principally discovered at postmortem examination.

Patients with Renal cell carcinoma (RCC) present with a range of symptoms, but many are asymptomatic until the disease is advanced. At presentation, approximately 25 percent of individuals either have distant metastases or significant local-regional disease. Other patients, even some with only localized disease, present with a wide array of symptoms and/or laboratory abnormalities. Because of this unusual characteristic, RCC has been labelled the "internist's tumor"[5]. Today, most tumors are diagnosed incidentally [5,6].

Renal cell carcinoma represents a heterogenous group of tumors, the most common of which is clear cell adenocarcinoma. RCC accounts for 3% of adult tumors. The incidence has increased more than 30% over the past two decades. It is generally accepted that the increased incidence rates reflect earlier diagnosis at an earlier stage, largely due to more liberal use of radiological imaging techniques. However advanced disease has also been diagnosed more frequently and mortality has increased as well [4].

Symptomatic presentation correlates with aggressive histology and advanced disease. Incidental tumours may be frequently detected in female and elderly patients, as these groups traditionally seek general medical care more regularly. The mode of presentation can independently predict an adverse patient outcome. Indicators of symptomatic presentations include flank pain, flank mass, varicocele, constitutional symptoms, paraneoplastic syndromes and bone pain related to metastatic disease [7].

Ultrasound scan was found to be useful screening test, but CT is the imaging study of choice to identify malignant features. MRI can be used in equivocal cases [7].Pre-operative clinical variables along with pathological staging may be used determine the risk of recurrence [3] and prognosis [5].

CONCLUSION

Asymptomatic presentation of renal cell carcinoma can occur; hence proper evaluation of patient should be done for early diagnosis and for better prognosis.

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Consent was obtained from the patient for publication of the study.

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