Case report

Oncocytoma , very rare tumor in the kidney. Case report

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Abstract
Renal oncocytomas (RO) are benign rare tumors within intercalated cells of the collecting duct in the kidney, incidence about5 % of all renal tumors. Most of these tumors incidentally found on CT scans, It's commonly seen more in male at age of 40 years, CT criteria's are poor predictors for proper diagnosis and does not exclude malignant renal cell tumors, Case ;50 year male patients presented t with long standing right loin pain on physical examination the patient was in pain and Right flank fullness and mass was felt, renal CT scan was done in the hospital and showed 7.5*8.4 cm inhomogeneous enhanced soft tissue mass within right kidney, so renal cell carcinoma was the top of differential diagnosis. So the decision was for right radical nephrectomy. Which was done at December 2014? At histopathology report, the cut surface show a tumor with a brown color occupying 60% of the renal tissue still confirmed within the renal capsule grossly. The tumor measured 605 cm in maximal dimension microscopic description was shown a tumor composed of sheets nests and tubules composed of oncocytic polyclonal cells having central nuclei with rare mitotic figures, the final diagnosis of right nephrectomy specimen was consistent with oncocytoma the excision was complete. The patient then was referred to medical oncology clinic at our hospital, it was discussed at multidisciplinary urology clinic, and the decision was to keep this patient on regular follow up.

Key word: *Oncocytoma, kidney, tumor*

Introduction

Renal oncocytomas (RO) are benign rare tumors within intercalated cells of the collecting duct in the kidney, incidence about5 % of all renal tumors[1].. Most of these tumors incidentally found on CT scans or Ultrasound done for abdominal pain, or sometimes patients complained hematuria and abdominal mass. It's commonly seen more in male at age of 40 years, and this observation is the same for malignant kidney tumors[2].. its occasionally occur bilateral in 10% of cases.RO usually appear as solitary mass within a kidney sized about 5 to 10 cm, the criteria to diagnose oncocytoma depend on CT scan criteria such as homogeneous attenuation throughout the tumor and a central, sharply emarginated, satellite area of low attenuation areas is not specific and many articles conclude that these CT criteria's are poor predictors for proper diagnosis and does not exclude malignant renal cell tumors[3]. .biopsy of renal mass had risk of seeding of tumors cells, and play a very limited role in identification of renal neoplasm. Histologically well demarcated, encapsulated tan to brown tumors, originate from collecting duct cells ,hemorrhage is absent presence of a prominent central scar within homogenous tumor

[4].Microscopically, RO consist of a pure population of oncocytes, which are large well-differentiated cells with intensely eosinophilic granular cytoplasm ,and show no evidence of mitosis[5]. Despite their benign course, oncytomas should be followed up frequently. Because of risk of co existence of renal cell cancer in 30% of cases and these tumors should be managed whether by total nephrectomy or partial nephrectomy. The latter is most commonly procedure standard of care for renal oncocytoma in developed centers[6].

Case report

50 year male patients presented to urology clinic with long standing right loin pain sine one year occasionally associated with hematuria, he took analgesia for this vague pain, he thought that it was gravels, on physical examination the patient was in pain and Right flank fullness and mass was felt, renal CT scan was done in the hospital and showed 7.5*8.4 cm inhomogeneous enhanced soft tissue mass within perinephric fat distortion the right kidney, normal other abdominal organs, no enlarged lymph nodes so renal cell carcinoma was the top of differential diagnosis. So the decision was for right radical nephrectomy. This was done at December 2014.the patient recovered smoothly after surgery. at histopathology report , the right kidney measured 13*7*5 cm and weighting 550grams ,surrounded by gerota fascia with attached supra renal gland which measured 4*2*0.5 cm and 5 cm segment of ureter . The cut surface show a tumor with a mahogany brown color occupying 60% of the renal tissue still confirmed within the renal capsule grossly. The tumor measured 605 cm in maximal dimension microscopic description was shown a tumor composed of sheets nests and tubules composed of oncocytic polyclonal cells having central nuclei with rare mitotic figures. Background stoma is hypocellular and show hyalinization, the adjacent tissues was normal.see fig. 1,2,3

Normal ureter renal vein adrenal the tumor cells are negative for CK 7 and CD 10 the final diagnosis of right nephrectomy specimen was consistent with oncocytoma the excision was complete. The patient then was referred to medical oncology clinic at our hospital, metastatic screen prior surgery was negative of metastasis, it was discussed at multidisciplinary urology clinic, the decision was to keep this patient on regular follow up, and there was no need for adjuvant treatment. He was fully asymptomatic on follow up, his lab results was normal on last follow up. He had no pain normal kidney function.

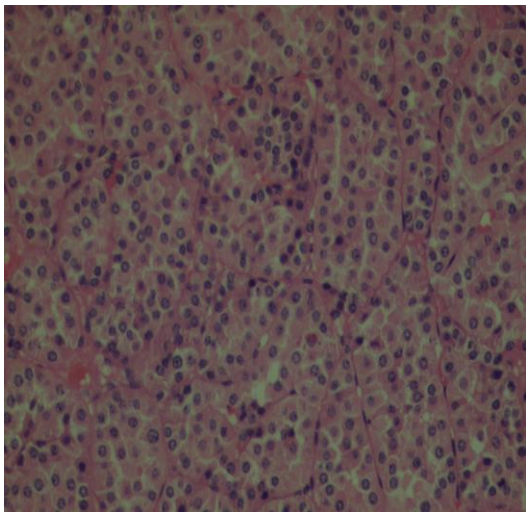

Fig. 1. Histopathology shows a moderately cellular tumor that grows in interlacing fascicles and has small pools of mucin. Cells were spindle-shaped with round to ovoid nuclei and no mitotic activity

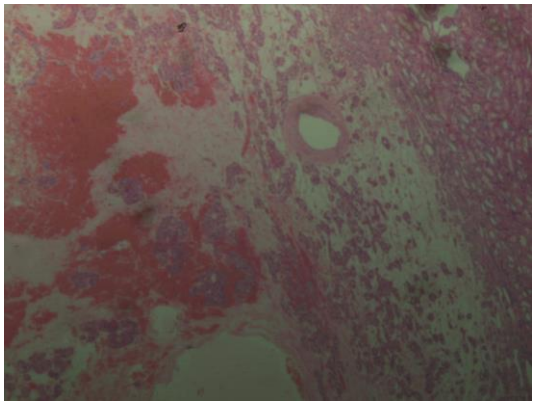

Fig. 2. Histopathology shows Cells were spindle-shaped with round to ovoid nuclei and no mitotic active

Discussion

Oncocutomas are benign rare tumors within the kidneys , it accounts about 5% of all renal neoplasms.in the past this type of tumors was labeled as renal cell carcinoma with oncocytic features , but nowadays it consider as special entity[7]. . Oncocytomas sometimes seen outside of kidneys like in thyroid, salivary glands and adrenal, OC is usually diagnosed incidentally on

radiological examination. It's seen more in males, usually has benign course and it's very rarely metastasize buts it do enlarge in size[8].. Most of cases it's surrounded by intact capsule, it's hard to differentiate between malignant renal cell neoplasm and oncocytoma preoperatively. So the management is same for both. Partial or radical nephrectomy is the proper management[9].. At histopathology it describe as tan brown tumor, with intact capsule originate from distal tubules .rarely to seen invasion of the capsule. The "oncocyte" is a large, round, or polygonal neoplastic cell with a granular eosinophilic cytoplasm. The tumor cells are negative for CK 7 and CD 10 .the patient kept on follow up without need of any adjuvant treatment.

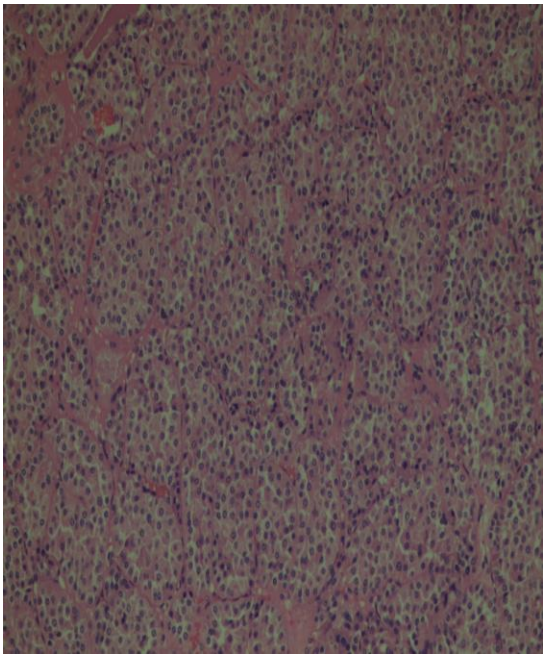

Fig. 3. Histopathology shows a spindle-shaped with round to ovoid nuclei and no mitotic activity

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