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Original Research Paper

Pathology

MULTILOCULAR CYSTIC RENAL CELL CARCINOMA:A CASE REPORT

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ABSTRACT

MCRCC is also known as multilocular clear cell RCC and multicystic clear cell carcinoma.[1] It is important to differentiate this entity from clear cell RCC since it is associated with a good prognosis.[1] Literature reports a very low incidence of 1-2% of MCRCC among renal neoplasms.[2] Men are more commonly affected than women.[2] There is a male: female preponderance of 3:1.[1,3] All patients have been adults (20 to 76 years, mean age 51 years).[1,3]
The first such reported case was in 1957 by Robinson.[2]
We report a case of 65 year old male who presented with abdominal lump and pain, underwent nephrectomy.

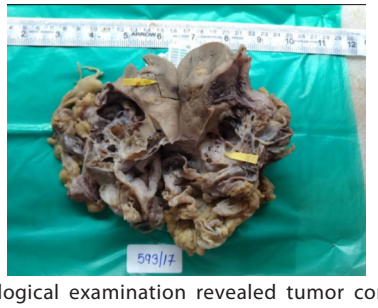
KEYWORDS :

INTRODUCTION: Multilocular cystic renal cell carcinoma (MCRCC), also known as multilocular clear cell renal cell carcinoma (RCC), is a rare cystic tumor of the kidney with excellent outcome.[4] The 2004 World Health Organization (WHO) classification of kidney tumors recognizes Multilocular cystic renal cell carcinoma (MCRCC) as a rare variant of clear cell renal cell carcinoma with a good prognosis.[1] At the 2012 International Society of Urological Pathology (ISUP) consensus meeting on adult renal neoplasia, the ISUP has designated the new term of "Multilocular cystic clear cell renal cell neoplasm of low malignant potential" due to the oftentimes reported nonaggressive behavior of MCRCC.[5] The 2016 WHO Classification of Tumors of the Urinary System and Male Genital Organs includes this new term and defines it as tumors composed entirely of numerous cysts, lined by a single layer of tumor cells with abundant cytoplasm with low-grade tumor cells.[5]

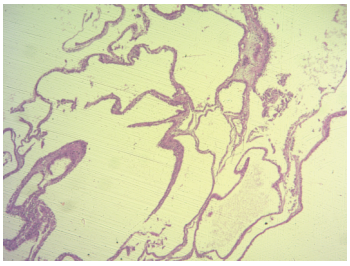
We report this rare entity in a 65 year old male patient

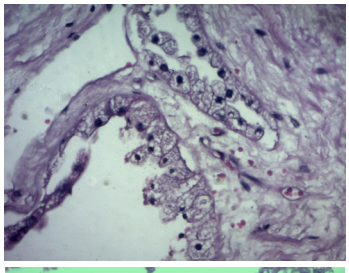
CASE REPORT: 65 year old male who presented with abdominal lump and pain since 6months. Contrast enhanced computerized tomography (CECT) revealed a well-defined, heterogeneously enhancing lesion in the lower part of right kidney. Preoperative complete blood count and biochemical parameters were within normal range. There was no significant family history. Nephrectomy was performed.

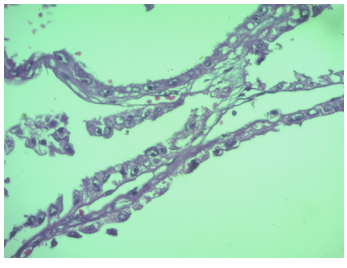
Grossly, the right nephrectomy specimen measured 15x10x4.5cm. External surface was bosselated. Cut surface showed multiple cysts in the cortex, ranging from 0.4-6 cm, separated by septae, occupying the lower pole of the kidney. The upper pole appeared unremarkable. Ureter measured 6cm in length. No calcification or necrosis noted grossly.



Histopathological examination revealed tumor composed of variably sized non communicating cysts separated by fibrous septae containing tumor cells with hyperchromatic nuclei, prominent nucleoli and clear cytoplasm. Interstitium showed chronic inflammatory cell infiltrate. The tumor did not invade the renal capsule or the hilar structures or the perinephric fat.. The tumor corresponded to Fuhrman nuclear grade 1.







DISCUSSION:
The 2004 World Health Organization (WHO) classification of kidney tumors recognizes multilocular cystic renal cell carcinoma (MCRCC) as a rare variant of clear cell renal cell carcinoma with a good prognosis.[1] They have been found in the mean age of 51 years with the age range of 20-76 years.[6] Male to female ratio is 3:1.[6] Genetic studies have shown association with 3p deletion, similar to clear cell renal cell carcinoma.[2] Microscopically the tumor is composed entirely of cysts lined by low grade clear cells, grade 1 or 2. The cysts should be separated by fibrous setae. There should be no papillary growth or expansile nodules. The tumor must be extensively sampled to make this diagnosis.[1]

The differential diagnosis of MCRCC consists of other cystic lesions of kidney:
Cystic nephroma
Extensively cystic clear cell RCC.
Clear cell papillary RCC
Tubulocystic carcinoma.[1]

We report this case due to its rarity and favourable prognosis

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