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HISTOPATHOLOGICAL STUDY OF RENAL TUMORS

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Conflicts of Interest: Nil

ABSTRACT:

Background: Renal tumours comprise a diverse spectrum of neoplastic lesions with patterns that are relatively distinct for children and adults. Accurate diagnosis of most renal tumours is not possible before surgery and histopathologic evaluation.

Methods: The study was conducted in the department of pathology. For this study, the cases of renal tumors were searched from records maintained in the department of Pathology. The required clinical details were sought from the medical records department. Name, age, parentage, address and Lab number of patients was checked in the record section of the Department.

Results: Histologically, Renal cell carcinoma (RCC)- clear cell type was most common 41 (82.00%) cases followed by granular type 4 (8.00%) cases and Oncocytoma 3(6.00%) cases in our study.

Conclusion- The most common renal tumour was renal cell carcinoma.

Keywords: Renal tumors, clear cell, Oncocytoma.

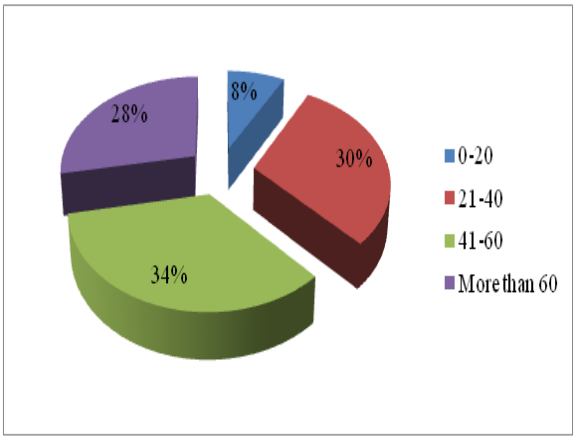
Introduction

Renal tumours comprise a diverse spectrum of neoplastic lesions with patterns that are relatively distinct for children and adults.[1] A wide variety of both benign and Malignant tumours arise from different components of the renal parenchyma, notably tubular epithelium. Accurate diagnosis of most renal tumours is not possible before surgery and histopathologic evaluation. Nephrectomy remains the standard of cure for patients with a suspected renal mass, despite studies that have established nephrectomy as an independent risk factor for developing chronic renal insufficiency .Both benign and malignant tumours occur in the kidney. A detailed and meticulous histopathologic examination of tumour nephrectomy specimens is essential to establish histologic type and to record accepted histopathological prognostic determinants i.e. tumour size, histologic subtype, nuclear grade, and stage in cases of malignant renal neoplasms.[2]

MATERIALS AND METHODS

The study was conducted in the department of pathology. For this study, the cases of renal tumors were searched from records maintained in the department of Pathology. The required clinical details were sought from the medical records department. Name, age, parentage, address and Lab number of patients was checked in the record section of the Department. Corresponding slides were collected and re-evaluated for the confirmation of diagnosis.

Results



Age wise distribution of renal tumors

34.00% biopsy was from more than 41-60 yrs age group.

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Table 2: Distribution of renal tumors according to histopathological diagnosis

Histopathological diagnosis	No. of biopsy	Percentage
RCC-clear cell type	41	82.00%
Granular type	4	4.00%
Papillary type	1	2.00%
Angiomyolipoma	1	2.00%
Oncocytoma	3	6.00%
Total	50	100

In this table histopathological spectrum of renal tumors observed in our study. Most common (82.00%) renal tumor was renal cell carcinoma.

Discussion

Renal tumors constitute a heterogeneous group of neoplasm's distinguishable histologically and cytogenetically. Classification of renal cell carcinoma is important from the treatment and prognosis point of view as well as for understanding of histogenesis. The kidneys are affected by various types of malignant tumours, 99 percent of renal neoplasms are malignant; Renal Cell Carcinoma and Wilms tumour being the most common[4]. Renal cell carcinoma accounts for approximately 2 percent of adult malignancies and 80 to 85 percent of malignant kidney tumours.[5] Mean age at diagnosis was generally around 60yr, and the male to female ratio was 3:1.[6] It is generally believed that about 5% of all kidney cancers occur in patients younger than 40 yr11,whereas there is limited information about the management of RCC in elderly people. It would be expected that renal tumours arising in young adults likely are more symptomatic and potentially aggressive, therefore requiring aggressive radical treatment. On the other hand, because of the widespread use of imaging in elderly people, an increasing number of tumours are being discovered with potentially indolent behaviour.

Histologically, Renal cell carcinoma (RCC)- clear cell type was most common 41 (82.00%) cases followed by granular type 4 (8.00%) cases and Oncocytoma 3(6.00%) cases in our study. This was similar to the observation made by Mohammad Rafique (2007)[7] who also observed that majority of malignant neoplasms (97%) of the kidney were renal cell carcinoma. Also V Popat et al (2010)[8]12 in their study found that (70%) malignant lesions were accounted for by renal cell carcinoma.

Conclusion:

The most common renal tumour was renal cell carcinoma.

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