



HISTOPATHOLOGICAL STUDY OF RENAL TUMORS.

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ABSTRACT:

Background-Renal tumours comprise a diverse spectrum of neoplastic lesions with patterns that are relatively distinct for children and adults.

Methods-Renal tumors in resected nephrectomy specimens over a period of one years were studied. Relevant clinical details were collected from record section of the department.

Results- 54.0% biopsy was from more than 50 yrs age group. Most common(87.0%) renal tumor was renal cell carcinoma.

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.¹⁻⁴ 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

This study was cross sectional study 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 histopathological reports of all such cases diagnosed during the above mentioned period, were collected. 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

Table 1: Age wise distribution of renal tumors

Age group(Yrs)	No. of biopsy	Percentage
0-10	3	3.0
11-20	5	5.0
21-30	3	3.0
31-40	11	11.0
41-50	24	24.0
More than 50	54	54.0
Total	100	100

54.0% biopsy was from more than 50 yrs age group.

Table 2: Distribution of renal tumors according to histopathological diagnosis

Histopathological diagnosis	No. of biopsy	Percentage
RCC-clear cell type	87	87.0
Granular type	5	5.0
Papillary type	2	2.0
Angiomyolipoma	2	2.0
Oncocytoma	4	4.0
Total	100	100

In this table histopathological spectrum of renal tumors observed in our study. Most common (87.0%) 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 common⁴. 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.

Vast majority comprised of renal cell carcinoma (87.0%). Histologically, Renal cell carcinoma (RCC)- clear cell type was most common 87 cases(87.0%) followed by RCC, Granular type 5 cases (5.0%), Papillary type 2 cases (2.0%) & Oncocytoma type 4 cases(4.00%) followed by angiomyolipoma 2 cases(2.0%) and Oncocytoma (4.0%) 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)⁸¹² 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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