

NEPHRECTOMY. A CLINICOPATHOLOGICAL STUDY

ABDULGHAFOOR S. ABDULKAREEM¹ and BASHAR A. HASSAWI^{*2}

¹Dept. of Surgery. College of Medicine, University of Duhok, Kurdistan Region-Iraq

²Dept. of Anatomy. College of Medicine, University of Duhok, Kurdistan Region-Iraq

(Received: January 7, 2018; Accepted for Publication: May 21, 2018)

ABSTRACT

Background: To provide the urologist with the proper histopathological diagnosis of nephrectomy specimens, to correlate the compatibility of clinical diagnosis and indications of nephrectomy with histopathological results and to see the relative frequency of each type and its specific pathologic characters. The study was conducted at Azadi teaching hospital and in the department of pathology, college of medicine, university of Duhok during a period from (Nov 2012 – Nov 2014). A total 161 nephrectomy specimens were examined grossly. Representative blocks were taken for histopathological examination. 76 patients (47.2%) of the patients were males, (85) 52.8% were females, with male: female ratio of 1:1.08. The mean age was 35.6 years. The histological examinations revealed in descending order 62.65% were inflammatory conditions (including chronic pyelonephritis, xanthogranulomatous pyelonephritis and tuberculous pyelonephritis). Adult type malignant conditions were found in 26% of the total cases (including renal cell carcinoma and transitional cell carcinoma). Only one case was lymphoma and other metastatic carcinoma. 9.8 % were cystic lesions of the kidney, 4.96 % were pediatric tumors (including nephroblastoma only), 2.48% was angiomyolipoma. The study concludes a wide range of renal pathology in this locality, histopathological examination for every nephrectomy specimen is the corner stone for a clinico-morphological correlation and proper management. The chronic pyelonephritis is the most and frequent pathologic indication for nephrectomy irrespective of age or sex. Xanthogranulomatous pyelonephritis is seen in age below 25 years and was usually associated with nephrolithiasis. Renal cell carcinoma is the most common kidney cancer in adults affects mainly males followed by transitional cell carcinoma and Nephroblastoma which is the main type of malignant tumors of the kidney in children. Secondary in the kidney, SCC and lymphoma are rare tumors.

KEYWORDS: Nephrectomy, Renal tumor, clinicopathological study

1. INTRODUCTION

Nephrectomy is a surgical removal of kidney in patients with an advanced kidney damage due to different renal diseases, injuries, or congenital conditions (Table 1). These diseases include serious kidney infections and inflammations like pyelonephritis and glomerulonephritis, malignant and benign tumors of the kidney (e.g. renal cell carcinoma), polycystic kidney disease and also used to remove a healthy kidney from a donor for renal transplantation (Beisland et al. 2000, Schiff et al. 1997)

The procedure of nephrectomy includes many types; partial, simple and radical nephrectomy and these three types of kidney resection done either by open surgery or through laparoscopic technique. Partial nephrectomy involve removing

a small portion of the kidney, simple nephrectomy performed for living donor transplant purposes which is require removal of the kidney and a section of the attached ureter, while the radical nephrectomy means removing the entire kidney including adrenal gland and the fatty tissue surrounding the kidney (Adamson et al. 1992, Wassim et al. 2009)

In a traditional open surgical nephrectomy, the procedure is done under general anesthesia and a 6–10 inch (15.2–25.4 cm) incision and separating several layers of abdominal wall muscle. This is made on the side or front of the abdominal wall. The blood vessels supplying the kidney are clamped and cut, and the ureter is also cut between the bladder and kidney and clamped (Ljungberg et al. 2010).

Another technique for kidney removal which is

* E-mail: b-hassawi@yahoo.com

widely spread, through laparoscopy, is a form of less invasive surgery that utilizes instruments on long, narrow rods to view, cut, and remove the kidney. The surgeon views the kidney and surrounding tissue with videoscope. The videoscope and surgical instruments are maneuvered through four small incisions in the abdomen, and carbon dioxide is pumped into the abdominal cavity to inflate it and improve visualization of the kidney. Once the kidney is isolated, it is secured in a bag and pulled through,

approximately 3 inch (7.6 cm) wide, in the front of the abdominal wall. Although this surgical technique takes slightly longer than a traditional nephrectomy, preliminary studies have shown that it promotes a faster recovery time, shorter hospital stays, and less post-operative pain with the same outcome, especially the excision of renal tumor,

sparing the healthy part of the kidney (Eskicorapci et al. 2007, Narmada et al 2005).

With the advance of technology like CT scanning, MRI and ultrasound imaging in recent years, used for various abdominal pathologies, including kidney diseases, especially the early detection of renal tumors and other diseases. It gives high proportion of preoperative diagnosis, but histopathological study still remain the gold standard for definite diagnosis (Kitamura et al. 2004, Minervini et al. 2012). To provide the urologist with the proper histopathological diagnosis of nephrectomy specimens, to correlate the compatibility of clinical diagnosis and indications of nephrectomy with histopathological results and to see the relative frequency of each type and its specific pathologic characters; this study was done.

Table (1): Variants of renal pathology

Renal pathology	
•	Congenital diseases of the kidney
•	Cystic disease of the kidney
•	Inflammatory conditions
•	Obstructive uropathy
•	Benign renal tumors
•	Malignant renal tumors

2. MATERIAL AND METHODS

A prospective study of 161 nephrectomy specimens The study was conducted at Azadi teaching hospital and in the department of pathology, college of medicine, university of Duhok during a period from (Nov 2012 – Nov 2014), to provide the surgeon the histopathological diagnosis of nephrectomy cases, to correlate the clinical findings and indications with histopathological results and the relative frequency of each type and its specific pathologic characters. The nephrectomy specimens were examined grossly. Representative blocks were taken for histopathological examination. The nephrectomy specimens (partial or radical) were included in this study at one academic center. The clinicopathologic features of these cases were reviewed and categorized to identify risk factors of multifocality including age, gender, size and side of the tumor, vascular invasion, Fuhrman's grade, and the clinical and pathological stages.

The patients, for whom the nephrectomies were performed, included 74 males and 87 females. Their age range from 5 months to 80 years. The specimen, when received, was fixed in 10% formalin, inspected and described grossly, weighed, measured and sliced. Each specimen was sampled by 2-4 blocks selected in accordance with the pathologic process that necessitated nephrectomy. The selected blocks then processed through, ascending concentration of alcohol, cleared by xylene, embedded in paraffin and cut at 4 μ thickness. Sections from each block were stained conventionally by Hematoxylin and Eosin stain and examined. Immunostain were done whenever it indicated.

3. RESULTS

Out of the total number of cases; 76 percent (47.2) of the patients were males, (85) 52.8% were females, with male: female ratio of 1:1.08. Their ages ranged from 5 months to 80 years with mean

age was 35.6 years (Table 2) summarizes the different pathological conditions of the specimens received and the patients sex distribution. On histopathological examination, in descending order 62.65% were inflammatory conditions (including chronic pyelonephritis, xanthogranulomatous pyelonephritis and tuberculous pyelonephritis), Adult type malignant conditions found in 21.1% (including renal cell

carcinoma and transitional cell carcinoma), 9.8 % were cystic lesions of the kidney, 4.96 % were pediatric tumors (including nephroblastoma only), 2.48% was angiomyolipoma. One case was lymphoma and other metastatic carcinoma.

The main clinical features and indications that the patients presented for nephrectomy, with their concordance between indication and pathological findings are shown in (Table 3).

Table (2): Renal pathology with sex distribution according to their frequency

Renal pathology	No. of patients (%)	Male	Female	M : F ratio
Inflammatory conditions				
Chronic pyelonephritis	77 (47.82)	27	50	1:1.5
Xanthogranulomatous PN	13 (8)	5	8	1:1.6
Rejection	10 (6.21)	6	4	1.5:1
Tuberculous PN	1 (0.62)	1	-	-
Adult malignant renal tumors				
Renal cell carcinoma.	26 (16.14)	16	10	1.6:1
Transitional cell carcinoma	5 (3.10)	5	0	-
Rhabdoid tumor	2 (5.5)	2	0	-
SCC	1 (0.62)	1	0	-
lymphoma.	1 (0.62)	1	0	-
Metastatic	1 (0.62)	1	0	-
Pediatric renal tumors				
Nephroblastoma	8 (4.96)	3	5	1:1.6
Mesoblastic nephroma.	-	-	-	-
Clear cell sarcoma.	-	-	-	-
Cystic condition				
Dysplastic kidney	6 (3.72)	4	2	2:1
Simple cyst.	-	-	-	-
Polycystic kidney disease	4 (2.48)	2	2	1:1
Benign tumors				
adenoma	1 (0.62)	1	0	-
multicystic nephroma	1 (0.62)	0	1	-
Angiomyolipoma	4 (2.48)	1	3	1:3
Total	161(100)	76 (47.2%)	85 (52.8%)	1:1.1

Table (3): the correlation between clinical indication & diagnosis with pathological findings

Clinical indication & diagnosis	Number and percentage		Number and percentage of cases confirmed the clinical indication and diagnosis by histopathology	
	No.	%	No.	%
Non functioning kidney	95	59	91	95.7
Renal mass	38	23.6	28	73.6
Flank pain	13	8	8	61.6
Recurrent UTI	11	6.9	10	90.9
Hematuria	4	2.5	4	100
Total	161	100	141	87.5

Nephroblastoma (Wilm's tumor) was the most common pediatric solid renal tumor; 8 cases (18.1%) were diagnosed (Table 4).

Table (4): Types of malignant tumor of kidney

Types	No.	%
Renal cell carcinoma	26	59.10
Wilm's tumor	8	18.18
Transitional cell carcinoma	5	11.36
Rhabdoid tumor	2	4.50
Squamous cell carcinoma	1	2.27
Lymphoma	1	2.27
Metastatic tumors	1	2.27
Total	44	100%

4- DISCUSSION

The kidney like other organs is liable to different diseases which vary from congenital diseases, inflammatory and neoplastic lesion. In the present study, out of the 161 Nephrectomy

specimens studied, majority of the cases (72.6%) were non neoplastic and benign lesions, while (27.3%) were malignant lesions. A similar predominance of benign lesions was observed in other studies (Table 5).

Table (5): The incidence of non neoplastic, benign and malignant lesions comparing with other studies

Study	Non neoplastic and benign tumors %	Malignant tumors %
Ghalayini (2002)	70.44	29.5
Rafique (2007)	76.6	23.4
Rehan et al	11	89
Aiman (2013)	77.2	22.8
<i>Present study</i>	72.6	27.3

Among nephrectomy specimens, 52.8% were of females and 47.2% of males, with M:F = 1: 1.1, this ratio is in concordance with the M:F ratio of 1:1.05 observed by Mohammad Rafique (12) and Aiman A (13). However, El Malik et al (14) reported 61% nephrectomy specimens in males and 39% in females with M:F = 1.9:1.

The main clinical features and indications that the patients presented for nephrectomy was non functioning kidney (95 patients), renal mass (38 patients), flank pain (13 patients). This was followed by hematuria (11 patients), four of patients who presented with hematuria had malignant lesions (Table 4). These observations were incomparable to those in the study conducted by El Malik et al.(1997) and Popat et al (2010). These studies showed that the main presentation was flank pain.

The most common pathological findings for nephrectomy was chronic pyelonephritis (47.8%), followed by renal cell carcinoma (16.1%).

Chronic pyelonephritis has been reported as the most common clinical indication in the studies by El Malik et al (1997), Popat et al (2010). Thirteen cases (8%) were xanthogranulomatous pyelonephritis. El Malik et al (1997) found (1.1%), Popat et al (2010) observed (2.5%) and Korkes (2008) found 19.2% cases of xanthogranulomatous pyelonephritis in nephrectomy specimens. Among the cases of xanthogranulomatous pyelonephritis in the present study, 5 (38.46%) were male and 8 (61.54%) female. Thus, a female predilection was noted. A similar female predilection was observed by Korkes (2008) and KB Koh (1993) A majority of patients, i.e., 10 cases (77%), belonged to the age group below 30 years.

Tuberculosis in this locality (Kurdistan region and other Iraqi region) considered an endemic disease and was found in 1 case (0.62% of cases). Ziehl – Neelsen stain was performed, but unfortunately, it was negative, but the presence of epithelioid and caseating granulomata are typical

of tuberculosis can be considered as an acceptable criteria for tuberculous diagnosis in our locality, which is unlike the situation in non-endemic areas where the identification of the microorganism is mandatory for the diagnosis (Venkata et al. 2007, Muldoon et al. 1999).

In the present study, a total of 36 (27.3%) malignant lesions were observed; of these, renal cell carcinomas seen in 26 cases (59.1%) (Table 5). This was similar to the findings by Amin (2002) who observed that the majority of malignant neoplasms (70%) of the kidney were

renal cell carcinomas.

The majority of renal cell carcinoma cases (61.5%) were seen in males and less 38.5% in females. Regarding the microscopical subtypes, the clear cell type of renal cell carcinomas was the main subtype, including 17 (65.38%) cases. This type was followed by papillary type; 4 cases (15.38%) (Table 6). Table 7 shows histological subtypes of renal cell carcinoma in comparing to others, clear cell carcinomas were more frequent in this study.

Table (6): Microscopical subtypes of renal cell carcinoma

Subtypes Of Renal Cell Carcinoma	No.	%
Clear cell type	17	65.38
Papillary type	4	15.38
Chromophobe type	4	15.38
Sarcomatoid type	1	3.84
Total	26	100%

In the present study, one case of squamous cell carcinoma was detected in a patient aged 30 years. Other studies showed primary squamous cell carcinoma of the kidney a very rare entity, comprising 0.5-0.8% among malignant renal tumors and usually occur in cases of longstanding renal stone (Li et al. 1987 and Blacher et al. 1985).

Nephroblastoma (Wilm's tumor) was the most common pediatric solid renal tumor; 8 cases (18.1%) were diagnosed (Table 5) with mean age at diagnosis of 2.3 years and it is comparable to other study in which the mean age was 3.25 year (Breslow et al. 1993). It was more common in girls with M:F ratio of 1:1.6, in contrast to other

study in which M:F ratio was 1.3:1 (Yildiz et al. 2000)

Table 2 shows that benign tumors of the kidney were less than malignant. Many studies revealed the same results and the benign tumors are more common in postmortem examination and as an incidental finding in imaging study during life. The most common type among benign tumors of the kidney is angiomyolipoma and is of interest because it may be misdiagnosed as cancer by imaging study prenephrectomy (Israel et al.2005, Pillay et al. 2003). Four cases (2.48%) of angiomyolipoma were seen in this study.

Table (7): Histological subtypes of renal cell carcinoma in comparing to others

Subtypes of renal cell carcinoma	Baltaci et al (2000)	Kitamura et al (2004)	Current study
Clear cell type	75.7%	87.6%	65.38%
Papillary cell type	14.5%	4.8%	15.38%
Chromophobe cell type	4.9%	1.9%	15.38%
Sarcomatoid cell type	4.9%	1.9%	3.84%

5. CONCLUSION

The present study provide wide range of renal pathology in this locality, histopathological examination for every nephrectomy specimen is the corner stone for a clinico-morphological correlation and proper management. Chronic

pyelonephritis was the most frequent pathologic indication for nephrectomy irrespective of age or sex and xanthogranulomatous pyelonephritis was not uncommon especially in younger peoples. Renal cell carcinoma was the most common kidney cancer in adults affects mainly males followed by transitional cell carcinoma.

Nephroblastoma was the main type of malignant tumors of the kidney in children. Secondary in the kidney, SCC and lymphoma are rare renal tumors.

6. REFERENCES

- Adamson A S, A S Nadjmaldin, J D Atwell. Total nephrectomy in children: a clinicopathological review. *British Journal of Urology* 1992;70(5):550-3.
- Aiman A, Singh K, Yasir M. Histopathological spectrum of lesions in nephrectomy specimens: A five-year experience in a tertiary care hospital. *J Sci Soc* 2013;40:148-54.
- Amin MB, Tamboli P, Javidan J, et al. Prognostic impact of histologic subtyping of adult renal epithelial neoplasms: an experience of 405 cases. *Am J Surg Pathol* 2002;26:281–91.
- Baltaci S., Orhan D., Soyupek S. et al. Influence of tumor stage, size, grade, vascular involvement, histological cell type and histological pattern on multifocality of renal cell carcinoma. *The Journal of Urology* 2000;4:36- 39.
- Beisland C, Medby PC, Sander S, et al. Nephrectomy - indications, complications and postoperative mortality in 646 consecutive patients. *Eur Urol* 2000;37:58-64.
- Blacher EJ, Johnson DE, Abdul Karim FW. Squamous cell Carcinoma of renal pelvis. *Urology* 1985;25:124-6.
- Breslow N, Olshan A, Beckwith JB, Green DM. Epidemiology of Wilms tumor. *Med Pediatr Oncol* 1993; 21:172.
- El Malik EM, Memon SR, Ibrahim AL, Al Gizawi A, Ghali AM. Nephrectomy in Adults: Asir Hospital Experience. *Saudi J Kidney Dis Transpl* 1997;8:423-7.
- Eskicorapci SY, Teber D, Schulze M, Ates M, Stock C, Rassweiler JJ. Laparoscopic radical nephrectomy: the new gold standard surgical treatment for localized renal cell carcinoma. *Scientific World Journal* 2007;7:825.36.
- Ghalayini IF. Pathological spectrum of nephrectomies in a general hospital. *Asian J Surg* 2002;25:163-9.
- Israel G. M., Hindman N., Hecht E. The use of opposed-phase chemical shift MRI in the diagnosis of renal angiomyolipomas. *Am J of Roentgenology* 2005;184:1868-1872.
- Kitamura H., Fujimoto H., Tobisu Ken-ichi et al. Dynamic computed tomography and color doppler ultrasound of renal parenchymal neoplasms: correlations with histopathological findings. *Japanese Journal of Clinical Oncology* 2004;34:78-81.
- Koh KB. Xanthogranulomatous Pyelonephritis in a Malaysian population. *Singapore Med J* 1993;34:341-2.
- Korkeas, F; Favoretto RL; Bróglia M; Silva CA; Castro MG; Perez MD (2008). "Xanthogranulomatous pyelonephritis: clinical experience with 41 cases". *Urology*. 71 (2): 178–80.
- Li MK, Cheung WL. Squamous cell Carcinoma of the renal pelvis. *J Urol* 1987;138:269-71.
- Ljungberg B, Cowan NC, Hanbury DC and et al. EAU guidelines on renal cell carcinoma: *Eur Urol* 2010;58(3):398-406.
- Minervini A, Serni S, Tuccio A, Siena G, Vittori G, Masieri L, Giancane S, et al. Simple enucleation versus radical nephrectomy in the treatment of pT1a and pT1b renal cell carcinoma. *Annals of surgical oncology* 2012;19(2):694-700.
- Muldoon C, Hickey D, Murphy D, Kay E. Pseudotuberculous pyelonephritis: a rare entity and a diagnostic pitfall. *Histopathology* 1999;35:181–182.
- Muldoon C, Hickey D, Murphy D, et al. Pseudotuberculous pyelonephritis: a rare entity and a diagnostic pitfall. *Histopathology* 1999;35:181–183
- Narmada P. Gupta and Gagan Gautam. Laparoscopic nephrectomy for benign non functioning kidneys. *J Minim Access Surg* 2005;1(4):149–154.
- Pillay K., Lazarus J., Wainwright H. C. Association of angiomyolipoma and oncocytoma of the kidney: a case report and review of the literature. *Journal of Clinical Pathology* 2003;56:544-547.
- Popat VC, Kumar MP, Udani D, Mundra MP, Vora DN, Porecha MM. A study on culprit factors ultimately demanding nephrectomy. *Internet J Urol* 2010;7.
- Rafique M. Nephrectomy: Indications, complications

- and mortality in 154 consecutive patients. J Pak Med Assoc 2007;57:308-11.
- Rehan Mohsin, Altaf Hashmi, Gohar Sultan et al. Renal Tumors in Young Adults A Single-Center Experience From a Developing Country Rehan, UROLOGY JOURNAL 2012;9(1):373-380.
 - Schiff M Jr, Glazier WB. Nephrectomy: indications and complications in 347 patients. J Urol 1997;118:930-1.
 - Venkata RK1, Kumar S, Krishna RP, Kumar SB, Padmanabhan S, Kumar S. Tuberculosis in chronic kidney disease. Clin Nephrol 2007;67(4):217-20.
 - Wassim Kassouf, MD, Robert Siemens, Christopher Morash et al. Follow-up guidelines after radical or partial nephrectomy for localized and locally advanced renal cell carcinoma Can Urol Assoc J 2009;3(1):73-76.
 - Yildiz I., Yüksel L., Özkan A. et al. Multidisciplinary approach to Wilms' tumor: 18 years of experience. Japanese Journal of Clinical Oncology 2000; 30:17-20.

پۆختە

پاشینه: ئەف قەكۆلینه دئ هژمارهكا پشكینیین هیستوپاتولوژی یین گونجای یین نموونه یین راكرنا گولچیسكئ ژ بۆ نوشدارین بسپور د بوارئ نه خوشیین بوریین میزی دا دابین كهت. ژ بۆ پیکه گریدانا هه فگونجاندنا پشكینیین کلینیکی و ناماژه یین راكرنا گولچیسكئ دگه ل نه جامین هیستوپاتولوژی، هه ردیسان ژ بۆ دیتنا به ربه لاقبوونا ریژه یی یا هه ر جوره کی و ساخه تین وئ یین پاتولوژی یین تاییه ت. ئەف قەكۆلینه ل نه خوشخانه یا نازادی یا فیرکاری و زانکویا دهۆك\ فهكولتیا زانستین پزیشکی، پشكا پاتولوژی د ماوه یئ دناقه را (کانوونا نیکی 2012 هه تا چریا دووی 2014) هاتیه نه جامدان.

سه رجه مئ 161 نمونه یین راكرنا گولچیسكان ب شیوه یه كئ ناشكه رایى هاتته پشكین. پارچه یین جیگیر و نموونه یی ژ بۆ پشكینیین پاتولوژی هاتته وه رگرتن. ژ سه رجه مئ گشت نه خوشان، 76 (47.2%) كه س ژ ره گه زئ نیڕ بوون و 85 (52.8%) ژ ره گه زئ مئ بوون. ریژه یا نیڕ بۆ مییان ب فی رهنگی بوو 1.08:1 بوو. تیکرایئ ژ یئ نه خوشان 35.6 سال بوون.

پشكینیین هیستولوژی "ژ سه ری به ره ف خواری" ناشكه را کر کو (62.65%) حاله تین هه ودانئ بوون (پیکدهاتن ژ هه ودانا نیفرونین گولچیسكئ یین دومدریژ، هه ودانین گولچیسكئ ژ جورئ زانتوگرانولوماتوس، هه ودانین نیفرونین گولچیسكئ یین تیوبه ركلوزسی.

حالته تین په نجه شیړئ یین ژ جورئ پیکه هشتی ل ده ف (26%) ژ سه رجه مئ گشت حاله تان هاتته دیتن کو پیکدهاتن ژ (په نجه شیړا خانه یین گولچیسكئ و په نجه شیړا خانه یین قه گو هیزه ر). ب تنئ یه ك حاله ت یئ په نجه شیړا قه ریژین لیمفاوی و جورین دی یین په نجه شیړئ یین میناستایتیکی بوو. (9.8%) ژ جورئ برینن کیسکی یین گولچیسكئ بوون و (4.96%) ژ ی وه ره مین زارۆكان بوون (پیکدهاتن ژ وه ره مین گولچیسكئ ب تنئ) و (2.48%) ژ ی ژ جورئ نه نگیومیولیوما بوون.

ئەف قەكۆلینه شیا کومه كا به رفه ره یا نه خوشیین گولچیسكان ل ده قه ری ده ستیشان بکه ت. هه ره وه سا دیارکر کو پشكینیین هیستوپاتولوژی ژ بۆ هه ر نموونه یه كا راكرنا گولچیسكئ به ری بناغه یی یه ژ بۆ پیکه گریدانا نیشانین کلینیکی و مورفولوژی دگه ل خۆپاراستن و ریقه به رییه كا گونجای. هه ودانا نیفرونین گولچیسكئ یین دومدریژ به ربه لاقترین ناماژه یین پاتولوژی نه و پتر د به ربه لاقن ل ده ف كه سین گولچیسكین وان هاتینه راگرتن بئ لبه رچا ف وه رگرتتا ژ ی و ره گه زئ وان. هه ودانین گولچیسكئ ژ جورئ زانتوگرانولوماتوس ل ده ف وان كه سان هاته دیتن یین ژ یئ وان د بن 25 سالیئ دا و به رکین گولچیسكان هه ین. په نجه شیړا خانه یین گولچیسكئ ژ ی به ربه لاقترین جورئ په نجه شیړا گولچیسكئ بوو ل ده ف كه سین پیکه هشتی و به هرا پتر تووشی ره گه زئ نیڕ. ل دووف دا ژ ی په نجه شیړا خانه یین

فهو هيزه و وهرمين گولچيسكى دهات كو نهفا دوماهيى جورى سهركى يئ وهرهما پيس يا گولچيسكى بوول دهف زاروكان و يا دووى بوو د گولچيسكى دا، جورى SCC و پهجهشيرا قهريزين ليمفاوى گهلهك د كيم بوون.

الخلاصة

مقدمة: لتزويد اختصاصي المسالك البولية بالتشخيص النسيجي السليم بعد استئصال عينات الكلية، ولمطابقة التشخيص السريري ودواعي استئصال مع النتائج المرضية في الفحص النسيجي. ومعرفة التواتر النسبي لكل نوع وصفاتها النسيجية قدمت هذه الدراسة. وقد أجريت الدراسة في مستشفى آزادي التعليمي وفي قسم علم الأمراض، كلية الطب، جامعة دهوك خلال فترة من (نوفمبر 2012 – 2014 نوفمبر). وتم فحص عينات استئصال الكلية لمجموع 161 نموذج. والتي تم فحصها عينيا ومن ثم الدراسة نسيجية. 76 في المئة (47.2) من المرضى هم من الذكور، (85) 52.8 في المائة من الإناث، كانت نسبة الذكور: الإناث من 1.8:1. وكان متوسط العمر 35.6 سنة. الفحص النسيجي كشف في ترتيب تنازلي 62.65% حالات التهابات (بما في ذلك التهاب الحويضة والكلية المزمن، و *xanthogranulomatous*، و التهاب الكلية التدرني). نوع الأمراض الخبيثة للكبار وجدت في 26 في المائة من مجموع الحالات (بما في ذلك سرطان الخلايا الكلوية وسرطان الخلايا المبطنة لقناة البول). حالة واحدة فقط كان من سرطان الغدد الليمفاوية والسرطان المنتشر. 9.8 في المائة من آفات كيسية، 4.96 في المائة من الأورام الكلية في الأطفال (بما في ذلك نيفروبلاستوما)، 2.48 في المائة *angiomyolipoma*. وتخلص الدراسة إلى مجموعة واسعة من الأمراض الكلوية في مناطقنا (كردستان)، وتعتبر الدراسة النسيجية لكل عينة استئصال هو حجر الزاوية لربط الخصائص المورفولوجية مع السريرية وتقديم العلاج الجيد. والتهاب الكلية المزمن تشكل معظم الحالات معظم ودواعي الاستئصال بغض النظر عن العمر أو الجنس. التهاب الحويضة والكلية. *Xanthogranulomatous* شائعة في سن أقل من 25 سنة وكان المقترنة عادة مع حصاة الكلية. سرطان الخلايا الكلوية هو السرطان الأكثر شيوعاً في البالغين يؤثر أساساً الذكور يليه سرطان الخلايا المبطنة لقناة البول. ونيفروبلاستوما وهو النوع الرئيسي للأورام الخبيثة للكلية في الأطفال. السرطان المنتشر الثانوي وسرطان الخلايا القشرية والأورام الليمفاوية أورام نادرة