

**SIMPLE RENAL CYST - A CASE REPORT**

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ABSTRACT

The simple solitary renal cyst was found in the right kidney of 60 years old female cadaver during routine dissection of abdomen. The cyst was located in the lateral border of the kidney. The kidney was also larger in size than usual. The clinical correlation and differential diagnosis of the cyst are discussed.

KEYWORDS: Renal cyst, Kidney, Cadaver.

INTRODUCTION

Kidneys are pair of excretory organs situated retroperitoneally, on each side of vertebral column, which forms the urine, eliminate nitrogenous waste product of protein metabolism from blood there by maintain electrolyte and water balance of body. It also maintains pH. of blood.

Simple renal cyst is sac of fluid that form in the kidney. Their size varies from a few millimeters to 10 cm in diameter. The wall of the cyst is characteristically yellowish – white and translucent. The cyst contains clear straw coloured fluid which may become rust coloured due to hemorrhage. Microscopically, the lining of the cyst is by single layer of cuboid or flattened cuboidal epithelium. The cyst wall contains variable amount of collagenised fibrous tissue which may occasionally have deposits of hemosiderin or calcium salts. The cysts usually confined to the cortex.

Procedure: The abdomen was opened as per Cunningham's manual of dissection. Anterior abdominal wall was reflected and anterograde viscera were removed. Then, both the kidneys were identified and removed the fascia from the anterior surface of the right and left kidneys.

A large cyst was encountered on lateral border of the right kidney. Then, right renal vein and renal artery were cut close to their origin from inferior vena cava and abdominal aorta respectively. Later, the ureter was traced and cut at midway. Lastly the right kidney was removed from cadaver.

The dimension of kidney and cyst were noted and the specimen is preserved in departmental museum.

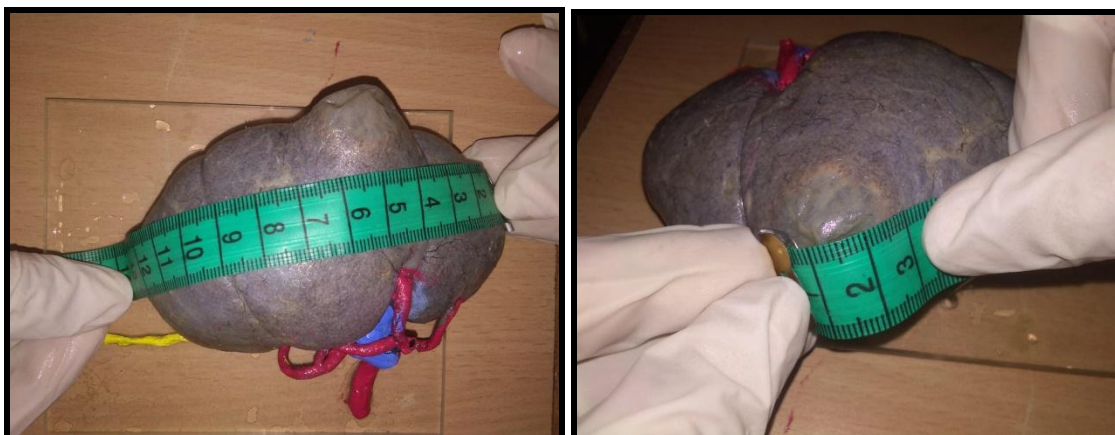
CASE REPORT

During routine dissection class for the Post Graduate Scholars, we observed a renal cyst in the kidney of 60 years old female cadaver. The peritoneum and anterograde abdominal viscera were removed to expose the kidneys. The simple renal cyst was exposed and photographed.

The renal cyst was found in the right sided kidney. It was situated on the lateral border. The measurements of the kidney were 13.5cm × 8.3cm × 3.5cm and the measurements of the cyst were 3cm × 3.5cm.



Fig. The simple renal cyst on the right sided kidney.

**Fig. Measurement of Kidney.****Fig. Measurement of Renal Cyst.**

DISCUSSION

The simple renal cyst is fluid filled sac that is commonly located in the cortex of kidney. It is usually solitary but maybe multiple. The size of the cyst varies from few millimeters to 10 centimeters. It is commonly seen in adults above the age of 50 years. Since these cysts are rare in children and infants, they appear to be acquired rather than congenital. The association between simple cysts and hypertension is clinically proven.

In the present case, the simple renal cyst of measurement 3cm × 3.5cm was found in the lateral border of the right kidney. The size of the kidney was 13.5cm × 8.3cm × 3.5cm which is larger than the normal size of the kidney i.e. 11cm × 6cm × 3cm. The left kidney was not presenting any cyst and seemed to be normal.

Simple cysts are the most common cystic renal lesions. They are present in 5% of the general population, increasing in frequency to 25-33% of patients older than 50 years, and account for 65-70% of renal masses.

In a South Korean study, it was mentioned that there is a higher rate of occurrences of hypertension seen in patients with large and peripheral cysts as well as multiple cysts than in patients with small peripheral cysts and single cyst. The sites of cysts on kidneys did not show any effect on the increase of hypertension. As there is an increased necessity of renal transplantation and a remarkable shortage of living kidney donors, hypertension should be considered as one of the exclusion criteria for the same. Simple renal cysts might be the causative factor for lost renal function and hypertension.

CONCLUSION

Simple renal cysts are very common finding during postmortem. They are seen in about half of all persons above the age of 50 years. Simple cysts of kidney are rarely responsible for symptoms. The main importance of the cysts lies in their differentiation from kidney tumors, when they are discovered either incidentally or because of hemorrhage and pain. Radiographic studies show that, in contrast to renal tumors, renal cysts have smooth contours, are almost always avascular and give fluid rather than solid tissue signals on ultrasonography.

Dialysis associated acquired cysts occur in the kidneys of patients with end stage renal disease who have undergone prolonged dialysis. They are present in both cortex and medulla and may bleed, causing hematuria.

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