



POLYCYSTIC KIDNEY DISEASE-A CASE REPORT

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ABSTRACT -

Background: Polycystic kidney disease is a disorder in which clusters of cysts develop primarily within your kidneys. Cysts are noncancerous round sacs containing water like fluid. Polycystic kidney disease isn't limited to your kidneys, although the kidneys are the most severely affected organs. The disease can cause cysts to develop in your liver and elsewhere in your body. A common complication of polycystic kidney disease is high blood pressure.

Case presentation: In this report a 60 years old man who is a known hypertensive for 3 years was treated as an inpatient for the first time at Matoshree Hospital with the presenting complains of chest pain and shortness of breath on exertion with the family history of polycystic kidney disease. Imaging findings are suggestive of polycystic kidney disease

KEYWORDS: *Polycystic Kidney Disease, Abdominal Pelvic Ultrasound, Abdominal CT-Scan*

INTRODUCTION-

Polycystic kidney disease (PKD) is an inherited disorder in which clusters of cysts develop primarily within your kidneys, causing your kidneys to enlarge and lose function over time. Cysts are noncancerous round sacs containing fluid. The cysts vary in size, and they can grow very large. Having many cysts or large cysts can damage your kidneys.

Polycystic kidney disease can also cause cysts to develop in your liver and elsewhere in your body. The disease can cause serious complications, including high blood pressure and kidney failure.

PKD varies greatly in its severity, and some complications are preventable. Lifestyle changes and treatments might help reduce damage to your kidneys from complications.

Cysts are noncancerous round sacs containing water like fluid. Polycystic kidney disease isn't limited to your kidneys, although the kidneys are the most severely affected organs. The disease can cause cysts to develop in your liver and elsewhere in your body. A common complication of polycystic kidney disease is high blood pressure.¹ One third of people older than 50 years develop renal cysts. Although most are simple cysts, renal cystic disease has multiple etiologies.

The broad categories of cystic disease include the following:

Developmental- multicystic dysplastic kidney (MCDK)

- Genetic-Autosomal recessive polycystic kidney disease (ARPKD)
autosomal dominant polycystic kidney disease (ADPKD),
juvenile nephronophthisis (JNPHP), medullary cystic kidney disease (MCKD),
glomerulocystic kidney disease.
- Cysts associated with systemic disease- Von Hippel-Lindau syndrome, tuberous sclerosis
- Acquired- simple cysts, acquired cystic renal disease, medullary sponge kidney (MSK)
- Malignancy- cystic renal cell carcinoma (RCC)

- The most common larger cysts include acquired cysts, simple cyst and cyst associated with ADPKD.
- Smaller cysts characterize ARPKD, JNPHP, MCKD and MSK.
- In adults, renal angiomyolipomas and RCC may have cystic components. 2

Polycystic kidney disease- presents with³ High blood pressure Back pain or flank pain.

Symptoms-

- Polycystic kidney disease symptoms can include:
- High blood pressure
- Back or side pain
- Blood in your urine
- A feeling of fullness in your abdomen
- Increased size of your abdomen due to enlarged kidneys
- Headaches
- Kidney stones
- Kidney failure
- Urinary tract or kidney infections

CASE REPORT:-

We present a case report of a 60 years old man who is a known hypertensive for 3 years was treated as an inpatient for the first time at Matoshree Hospital with the presenting complains of chest pain and shortness of breath on exertion.

He has no history of admission, nor drug or food allergy.

Moreover there is a family history of polycystic kidney disease, his father was having polycystic kidney disease.

- The patient's blood pressure was 180/100 mmHg.
- The patient underwent the following investigations:
- EKG, Echocardiogram,
- RBG,HbA1c,

- abdominal pelvic USS,
- and abdominal CT-scan,
- lipid profile, liver function test and renal function test.
- Abdominal pelvic ultrasound revealed multiple simple cysts on the right and left kidneys respectively, as shown in figures 1, 2 and 3.

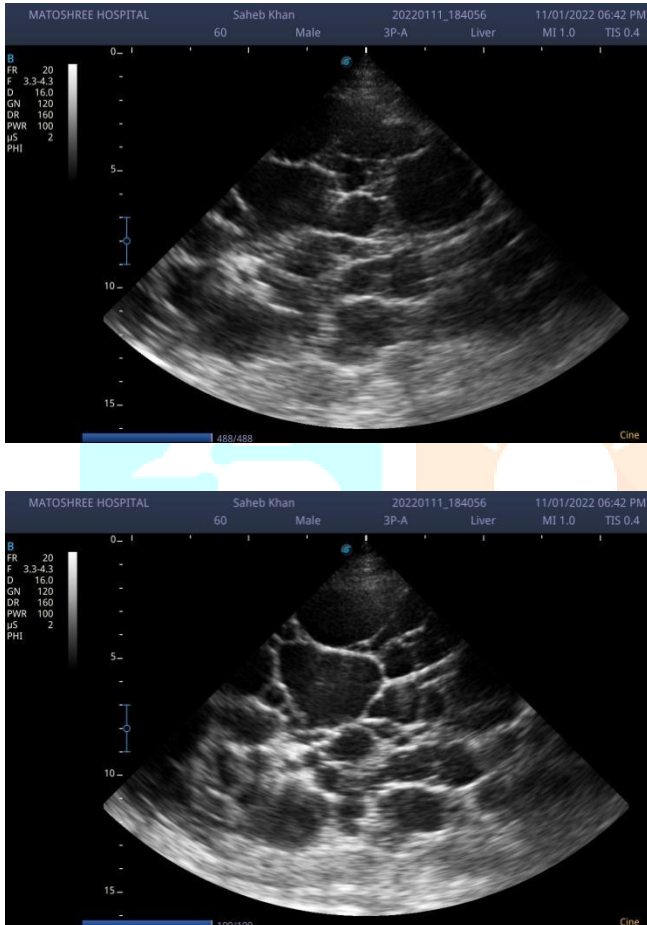


Figure 1: showing cysts on the right kidneys through abdominal pelvic ultrasound



Fig 2: showing a cyst on the left kidney through abdominal pelvic ultrasound

Abdominal Ct-scan also revealed multiple bilateral simple renal cysts.

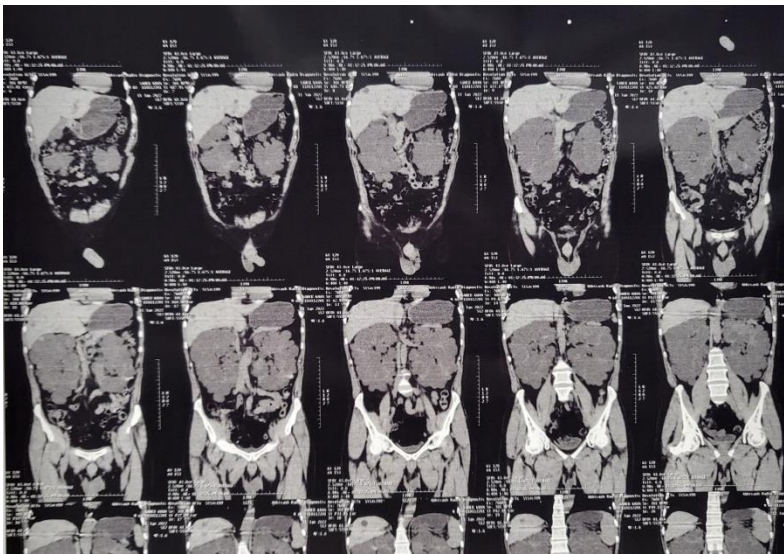


Figure 3: CT-scan showing multiple cysts on the kidneys

Findings-Lipid profile, liver function test were normal and slightly deranged renal function test.

ECG of The patient s/o Anterior wall myocardial infarction was managed by thrombolysis with streptokinase.

This case report illustrates how polycystic kidney disease was diagnosed despite how it presented and being a cause of secondary hypertension and how a family history is important.

DISCUSSION:

Polycystic kidney disease affects 12.5 million people worldwide. It is found in all races and affects men and women equally.³

This disease affects people of all ages from neonates to adults, for adults usually it affects on their 50's it is a life threatening condition to some individuals but to some it is asymptomatic, to our patient he is 60 years old asymptomatic till presentation to hospital although his blood pressure is currently controlled but the presence of Acute coronary syndrome requires him to have several close monitoring.

The average age of end stage renal disease is approximately 55 years⁴, our patient although he is 60 years he has slightly deranged renal function test. The risk of developing end stage renal disease include being male, enlarged kidneys, presence of visible blood or detectable protein in urine, or having high blood pressure (particularly before the age of 35yrs) ⁴, our patient seems to be in high risk of developing end stage renal disease because of the above risk factors, thus requires close monitoring and evaluation and if possible draining of the cysts might be a better option as the part of management for our patient.

It is usually easy to diagnose autosomal dominant polycystic kidney disease (ADPKD) in people who develop flank or abdominal pain and in those who have a family history of ADPKD.

An imaging study, such as an ultrasound, is recommended as the first diagnostic test and may reveal multiple cysts on both kidneys. Cysts may also be seen in the liver, pancreas, and spleen.⁴

In people without a family history, ADPKD may be more difficult to diagnose. The diagnosis of polycystic kidney disease may first be suspected based on an imaging test, such as an ultrasound, performed for some other reason.

The family history may be negative either because family members developed symptoms at a later age and died of other causes before ADPKD was diagnosed. ⁴

Our patient had family history of ADPKD; the diagnosing was based on presence of family history, and was confirmed by abdominal pelvic ultrasound and abdominal CT-scan.

CONCLUSION:

Polycystic kidney disease is an important cause of secondary hypertension in children and in adults, it is responsible for cardiovascular and kidney complications, thus making it necessary for this case report.

REFERENCES -

1. Mayo clinic internal medicine
2. Emedicine
3. www.kidney.org/atoz/pdf/polycystic.pdf
4. [http://www.uptodate.com/contents/polycystic-kidney-disease-beyond-the- basic](http://www.uptodate.com/contents/polycystic-kidney-disease-beyond-the-basic)
- 5 .Polycystic kidney disease (PKD). National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/kidney-disease/polycystic-kidney-disease>. Accessed May 6, 2020.
- 6.Chapman AB, et al. Autosomal dominant polycystic kidney disease (ADPKD): Treatment. <https://www.uptodate.com/contents/search>. Accessed May 6, 2020.
- 7.Polycystic kidney disease. American Kidney Fund. <https://www.kidneyfund.org/kidney-disease/other-kidney-conditions/polycystic-kidney-disease.html>. Accessed May 6, 2020.