

Pancake Kidney: A Case Report

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Abstract

There are many developmental anomalies of the kidney. Pancake kidney is one of the rarest types of renalectopia. We report a case of pancake kidney which was detected incidentally while treating a male patient for renal colics. A CT scan concluded to pancake kidneys with right ureteropelvic junction obstruction, associated to multiple renal calculi. He underwent a Kuss-Anderson-Hynes pyeloplasty.

Keywords: Pancake kidney; Ureteropelvic junction obstruction; Pyeloplasty

Introduction

Urinary tract defects, also called malformative uropathies, are ranked third behind cardiovascular and orthopaedic malformations. They include extremely varied abnormalities; some of them are specific to the kidney, ureter, bladder or urethra. There are many developmental renal anomalies. Pancake kidney is one of the rarest types of them.

Case Report



Figure 1: A contrast-enhanced computed tomography abdomen scan in the coronal section showing the pancake kidney placed in the pelvis with right ureteropelvic junction obstruction, associated to multiple renal calculi.

A 53-year-old male patient, with no medical or surgical history, presented with renal colics of two months duration. Clinical examination was normal. Biology showed a normal renal function. An ultrasound of the urinary tract revealed two discoid pelvic kidneys with dilation of right renal pelvis and calyces. A CT scan concluded to pancake kidneys with right ureteropelvic junction obstruction, associated to multiple renal calculi (Figure 1). Thus, the patient was approached through iliac incision. Exploration found

two abnormal rotation pelvic pancake kidneys, connected by their outer edges. He underwent a Kuss-Anderson-Hynespyeloplasty.

Discussion

Kidney fusion anomalies were first described in 1938 by Wilmer [1]. There are two types of abnormalities. Pancake kidneys are connected by their poles and they form a parenchymatous mass in pelvic position [2]. There may be two normal ureters. Renal pelvis may communicate with one or two ureters. Pancake kidney is an extremely rare entity with unknown incidence [3]. Looney and Duke were first to describe the pancake kidney [4]. More men are affected than women. It can be diagnosed at any age and is frequently associated with other urinary tract defects [5]. Pancake kidney exposes to urinary infections and renal calculi, probably caused by rotation abnormalities and the short length of ureters, which favor obstruction and stasis. Clinically, patients with pancake kidney are generally asymptomatic. They sometimes have recurrent urinary infections, abdominal pain, and even extra urinary signs such as amenorrhea and iliac aneurysm. Patients with pancake kidney don't necessarily have renal insufficiency. Asymptomatic patients will have regular checks of renal function. Generally, we try our best to avoid unnecessary explorations and invasive procedures.

References

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