

GIANT HYDRONEPHROSIS PRESENTING AS A PALPABLE ABDOMINAL MASS

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ABSTRACT

Giant hydronephrosis is a rare condition. We report a case of a unilateral giant hydronephrosis in an adult patient presenting as palpable abdominal mass secondary to ureteropelvic junction (UPJ) obstruction.

Key Words: Giant hydronephrosis, Ureteropelvic junction obstruction

INTRODUCTION

Giant hydronephrosis caused by congenital UPJ obstruction is a rare urological entity. In 1939, Stirling first defined it as the presence of more than one liter of fluid in the collecting system. It is seen more often in males than in females (2.4:1) and more often on the left side (1.8:1) (1, 2). It is usually secondary to ureteropelvic junction obstruction, stones and congenital abnormality. Most of the cases are usually diagnosed and treated in infancy or childhood. However, some patients remain asymptomatic until later in life. Adults may present with intermittent abdominal or flank pain, renal insufficiency, urinary tract infection or gross hematuria after minor episodes

of trauma (3,4). We report a case of a unilateral giant hydronephrosis in an adult presenting as palpable abdominal mass secondary to ureteropelvic junction (UPJ) obstruction.

CASE REPORT

A 23-year-old woman presented with a two-month history of a left quadrant palpable abdominal mass. Apart from lower urinary tract symptoms such as nocturia and frequency, her medical history was unremarkable. Physical examination revealed a grossly distended abdomen where the upper margin of distension was at the level of the epigastrium and the lower at the suprapubic region. The urine contained microscopic amounts of blood and a few leucocytes. Abdominal ultrasound demonstrated a very large cystic mass in the left side of the retroperitoneum and a normal right kidney. In the excretory urogram, there was a normal right kidney but non-visualisation of the left kidney. A cystic mass resembling a non-functioning, grossly enlarged left kidney 27 x 28 x 30 cm in diameter, involving all the retroperitoneal space from the superiorly left sub-diaphragmatic area to the bladder inferiorly was revealed by computerized tomography (Fig. 1). DMSA renal

scintigraphy confirmed a nonfunctional left kidney. There was no demonstrated reflux in voiding cystourethrography. Her laboratory findings were within normal limits. The hydatid serology was negative. The patient underwent exploration and a left giant hydronephrosis with a liquid content of approximately 3 liters caused by stricture at the ureteropelvic junction was seen. The hydronephrotic kidney was seen as involving all the retroperitoneal space crossing midline to the right and pushing down the bladder inferiorly. The hydronephrotic sac was thin and left nephrectomy was performed without opening the sac and draining off the liquid (Fig. 2). The patient made an uneventful recovery in the postoperative period and the pathologic result of

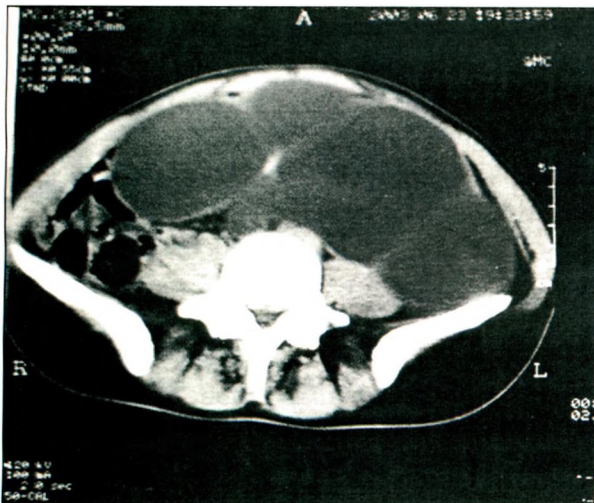


Fig. 1: Computed tomography (CT) of the retroperitoneum showing giant hydronephrosis.



Fig. 2: Giant hydronephrotic kidney after the surgery.

the specimen was reported as hydronephrotic and end-stage kidney.

DISCUSSION

Giant hydronephrosis caused by congenital UPJ obstruction is a rare urological entity, defined arbitrarily as over 1.0 L of fluid in the collecting system. Hydronephrosis may increase rapidly without warning in adult life (5). Adults with this condition may present with intermittent abdominal or flank pain, renal insufficiency or urinary tract infection (4). We report a case of a giant hydronephrosis in a woman due to UPJ obstruction presenting with only palpable abdominal mass. She underwent nephrectomy due to her demonstrated nonfunctional kidney without opening the hydronephrotic sac during the operation.

The diagnosis of a possible giant hydronephrosis should be taken into consideration not only in children but also in adult patients in the presence of a retroperitoneal liquid mass in a very large diameter without other pathological signs.

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