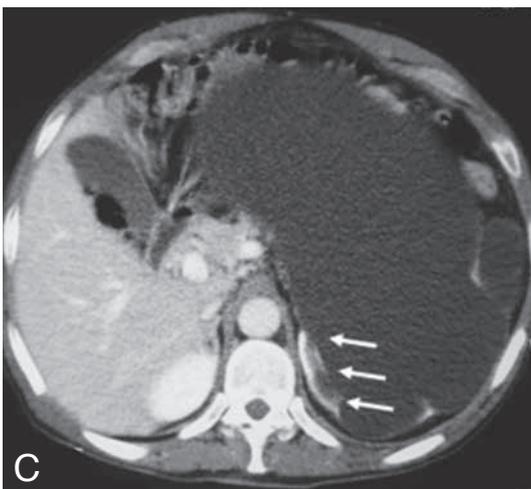
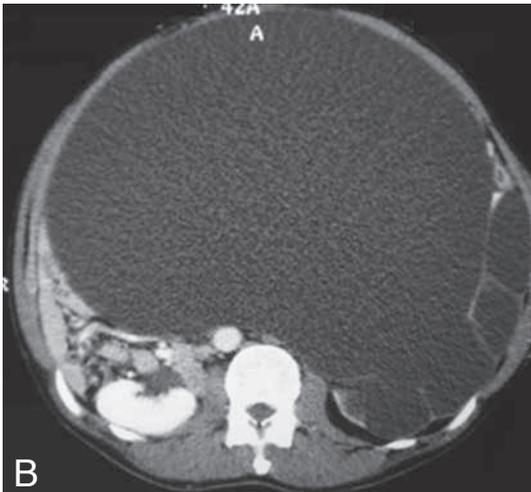
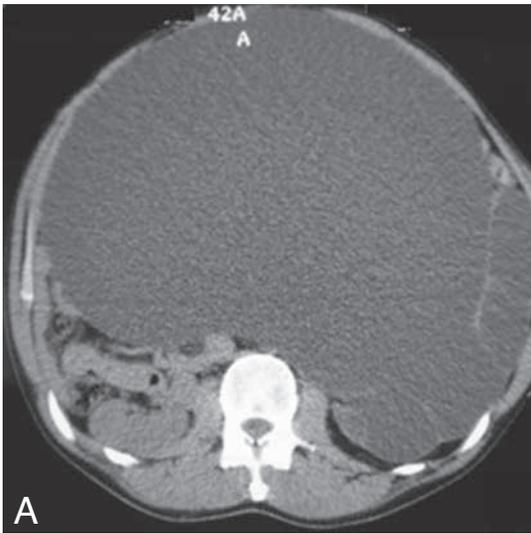


## IMAGES IN CLINICAL RADIOLOGY



### *Giant hydronephrosis in a 42-year-old man revealed by low back pain*

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A 42-year-old man with no medical history complaining of back pain for several months with bilateral sciatica poorly systematized. Radiographs of the lumbar spine show a narrowing of the L4/L5 disc space. A lumbar spine Computed Tomography (CT) was requested to explore these low back pain. It revealed a medial disc herniation at the L4-L5 level and discovers a large cystic swelling with thin septations occupying whole of the abdomen (Fig. A). Contrast-enhanced abdominal CT scan confirmed left giant hydronephrosis secondary to pelviureteric junction obstruction (Fig. B) with thin renal parenchyma (white arrowheads) (Fig. 3). It's shifting all the bowel loops to the right side. Non left ureteral stone, never mass syndrome has been highlighted. Left nephrectomy was performed and approximately 8 liters of clear urine was drained. The patient had an uneventful recovery postoperatively.

#### *Comment*

Giant hydronephrosis is a rare condition, defined as the presence of massive dilatation of renal collecting system containing more than a liter of fluid. Approximately 200 cases have been reported in the world literature since it was first described in 1746. It's mainly caused by congenital obstruction of the ureteropelvic junction, followed by stones, trauma, and tumors. Other less common causes include obstructive megaureter, ureteric atresia, polar or aberrant vessels, flap-like mucosal folds and impacted ureteric stone.

Giant hydronephrosis is a slowly progressive disease, and a huge abdominal mass or distended abdomen may be the only sign. Occasionally patients present with flank pain, hematuria, recurrent urinary tract infection or low back pain like in our patient.

The most common and efficient diagnostic modalities are CT and ultrasound. Magnetic resonance imaging can help to establish diagnosis in allergic for iodine patients or sometimes in pregnant women.

The differential diagnosis of giant hydronephrosis arises with intra-abdominal cystic masses and ascites.

Giant hydronephrosis can lead to complications like renal failure, infection, malignancy and rupture of the kidney.

Treatment depends upon anatomical configuration and functional status of renal units. Usually, nephrectomy is the treatment of choice as the affected kidney is often very poorly functioning. However percutaneous nephrostomy may be performed in the compromised patient to relieve secondary.

#### *Reference*

1. Rajaini S., Kekre N.S.: Giant hydronephrosis mimicking massive ascites. *ANZ J Surg*, 2012, 82: 468-469.

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