



Case Report

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Giant hydronephrosis of kidney mimicking ascites: A case report

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Abstract

The giant hydronephrosis can rarely be large enough to mimicks as ascites. A patient was received with distended abdomen and was diagnosed clinically as ascites in which paracentesis revealed clear fluid and subsequently ultrasonological evaluation revealed a giant hydronephrosis of left kidney occupying almost whole abdomen. Such presentation of giant hydronephrosis is uncommon, So, we present this case in which percutaneous nephrostomy was done as initial treatment to savage the kidney function.

Keywords: Giant hydronephrosis, Paracentesis, Ascites, Percutaneous nephrostomy.

INTRODUCTION

Huge intra-abdominal swelling is always a diagnostic dilemma; giant hydronephrosis is an unusual cause. Gross hydronephrosis large enough to occupy whole abdomen and to mimic ascites is a rare entity. Rarely, unilateral giant hydronephrosis of kidney can occupy whole abdomen and can present as distended abdomen with or without pain and discomfort. Most common cause of giant hydronephrosis is pelviureteric junction obstruction (PUJ) due congenital or due to impacted stone at PUJ. Often hydronephrosis is discovered when ultrasound is done for other reasons e.g. to find out cause of distended abdomen. Usually, these patients don't present as acute emergency. Giant hydronephrosis large enough to mimic ascites is presented here.

CASE REPORT

A 65 year male patient was admitted with distended, painful abdomen along with respiratory discomfort (Fig-1). There were no other sign and symptoms except for the feeling of heaviness, with no relevant medical history like that of pulmonary or extra pulmonary tuberculosis. The physical examination revealed a distended abdominal which was dull on percussion and fluid thrill was positive. All blood reports were within normal parameters. Clinically, Patient was diagnosed as a case of massive ascites and paracentesis was done to relive respiratory discomfort .Aspirated fluid was clear and transudative in nature. Subsequently, on ultrasonography, patient was diagnosed as a case of cystic mass (gross hydronephrosis of left kidney) (Fig-2). There was no functional cortical tissue in left kidney. Intravenous urogram and computerized tomography (CT scan) could not be done as patient was very poor and could not afford the money. Percutaneous nephrostomy was done and more than 9 liter of urine drained in the bag. After 4 weeks, laparoscopic nephrectomy was done as kidney was nonfunctional (Fig-3) and removed kidney was sent for histopathology and revealed thinning of cortex due to congenital PUJ obstruction.

DISCUSSION

Gross hydronephrosis large enough to occupy whole abdomen and to mimic ascites is a rare entity .Giant hydronephrosis is defined as the presence of more than 1000 ml of fluid in the collecting system. It can also be defined as kidney that occupies hemi abdomen, which meats or crosses the midline and which is at least 5 vertebrae in length. The main causes can be congenital pelvi-ureteric junction obstruction, ureterovesical junction obstruction, obstructive megaureter, ureteric atresia, obstructive ectopic ureter

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with or without a duplex system, impacted ureteric stone, blind ending ureteric bud ^[1] and rarely due to renal tuberculosis causing upper ureter stricture ^[2]. It can be associated with stag horn stone, infection and malignancy ^[3]. It is seen more often in male than in females (2. 4:1) ^[4]. It can mimic ascites, large ovarian cyst, pseudopancreatic cyst, large mesenteric cyst, and loculated peritoneal collection associated with tuberculosis or cirrhosis of liver ^[5, 6, 7]. Diagnosis is made with the help of ultrasound and CT scan. Management of the patient depends upon the cause and on number of kidneys involved. As all the patients with giant hydronephrosis do not have similar anatomical configuration and functional status of renal units and therefore, treatment has to be individualized in every patient. Ideally, percutaneous nephrostomy should be done as initial procedure in all the patients (as done in our case) and then, based upon overall functional status, ablation of diseased kidney or reconstruction of the unit is done ^[1]. Nephrectomy is treatment of choice for nonfunctioning kidney and laparoscopic nephrectomy has got better result than open surgery ^[8].

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Figure 1: Showing patient with distended abdomen

Figure 2: Legends-showing Ultrasound of abdomen



Figure 3: Showing post operative photo of abdomen of patient

CONCLUSION

Huge intra-abdominal swelling is always a diagnostic dilemma; giant hydronephrosis is an unusual cause. Its accurate diagnosis remains challenging due to the atrophy of the renal parenchyma associated with chronic obstruction thus resulting in loss of contrast enhancement. In the presence of an abdominal/ retroperitoneal cystic mass and in absence of other pathological signs, the diagnosis of a possible giant hydronephrosis should always be kept in mind in patients of all age group.