



CASE STUDY

GIANT HYDRONEPHROSIS PRESENTING AS MASSIVE ASCITES

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ABSTRACT

Giant hydronephrosis is a relatively rare condition caused by obstruction of the renal collecting system that can present with a great number of different types of abdominal signs and symptoms. A 32 year old man (alcoholic) presented in our hospital with massive ascites clinically misdiagnosed as chronic liver disease. The condition, although unusual, is not rare. However, for the hydronephrosis to attain such proportions that clinically it simulates ascites, as occurred in our patient presented in this report. Our purpose in describing this case to call attention to the dangers attendant upon misdiagnosis.

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INTRODUCTION

Giant hydronephrosis is a relatively rare condition caused by obstruction of the renal collecting system that can present with a great number of different types of abdominal signs and symptoms. Massive or giant hydronephrosis has been arbitrarily defined as a hydronephrosis containing at least 1,000 ml. of fluid. The condition, although unusual, is not rare. However, for the hydronephrosis to attain such proportions that clinically it simulates ascites, as occurred in the patient presented in this report. Our purpose in describing this case to call attention to the dangers attendant upon misdiagnosis.

Case Report

A 32 year man presented in Dr. R. M. L. Hospital with complaints of progressive abdominal swelling for 1 year with no other associated symptoms. There was past history of alcohol intake. On examination pulse-68, blood pressure-122/78 mmHg, RR-18/min, systemic examination revealed distended abdomen with fluid thrill. All blood investigation are within normal limits, ultrasound abdomen shows large cystic

Collection occupying whole abdominal cavity displacing viscera. CECT Abdomen shows fused renal ectopia with neglected severely hydronephrotic right kidney (Fig. 1, Fig. 2). Ultrasound guided aspiration was done and patient was advised for nephrectomy.

DISCUSSION

The present case has several unusual features. A kidney containing more than 1 litre of fluid in its collecting system is generally defined as giant hydronephrosis. A giant hydronephrosis may rarely fill the entire abdomen, as in our patient, and differentiation of the condition from ascites may then be difficult on clinical examination alone. The initial clinical diagnosis of the present case was massive ascites, probably due to Chronic Liver Disease (CLD). His ultrasonographic appearance shows right-sided hydronephrosis. Most of the patients with giant hydronephrosis reported earlier had a slowly progressive long-standing disease. The main causes of giant hydronephrosis can be congenital pelvi-ureteric junction obstruction, ureterovesical junction obstruction, obstructive megaureter, ureteric atresia, obstructive ectopic ureter with or without a duplex system, impacted ureteric stone, blind ending ureteric bud (Shah, 2004) and rarely due to renal tuberculosis causing upper ureter stricture (Hong, 1975).

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Figure 1. CECT Abdomen showing displacement of viscera



Figure 2. CECT abdomen gross right hydronephrosis with renal ectopia

It can be associated with stag horn stone, infection and malignancy (Sanqisetty, 1985). Congenital conditions, such as posterior urethral valves or bladder diverticulae, can cause bilateral hydronephrosis in the early years. In the later years, extrinsic compression leading to bilateral hydronephrosis may be caused by pregnancy, pelvic organ prolapse, pelvic malignancy, prostate cancer, or hyperplasia, in addition to other causes. It is seen more often in male than in females (Yapanoglu, 2007).

It can mimic ascites, large ovarian cyst, pseudopancreatic cyst, large mesenteric cyst, and loculated peritoneal collection associated with tuberculosis or cirrhosis of liver (Singh, 1993; Yousuf Perwez, 2003 and Aggarwal, 1999). 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 and then, based upon overall functional status, ablation of diseased kidney or reconstruction of the unit is done (Shah, 2004). Nephrectomy is treatment of choice for nonfunctioning kidney and laparoscopic nephrectomy has got better result than open surgery.

Conclusion

Giant hydronephrosis is an unusual cause of massive ascites. 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.

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