

Just another hydronephrosis?

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ABSTRACT

Obstruction at the upper end of ureter is one of the most common surgical problems that we face in day to day life. Diagnosis of hydronephrosis due to PUJ obstruction is not difficult either. But sometimes unrecognized obstruction can lead to many problems resulting in significant morbidity and sometimes even death. Giant hydronephrosis is a rare entity and giant pyonephrosis even rarer. Here we present a case of 19 year old male who presented with abdominal distension, shortness of breath and other gastrointestinal symptoms.

Keyword: Hydronephrosis, puj obstruction

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Case Report

An 18 year old gentleman presented to us with history of progressively increasing abdominal distension, associated with shortness of breath of one month duration. He had anorexia and gives history of significant weight loss. He denies any history of fever, urinary symptoms and features of obstruction. Medical history was unremarkable. Patient was thin built and cachectic. Mild pallor with bilateral pitting edema was present. His vitals were normal. Abdomen was grossly distended. There was a large tender intra abdominal mass extending beyond midline and occupying almost whole abdomen. Expect for his slightly deranged renal function test, rest of the blood investigations were within normal limit. He was initially seen in a regional hospital and was referred to our hospital for further management. His ultrasound revealed a large complex cystic SOL, likely hydatid cyst and his left kidney was not visualized – agenesis / ectopic. He was admitted in the general surgery unit and later urology consultation was sought. ELISA for echinococcus antibody was negative. CECT scan of abdomen and pelvis showed a huge cystic lesion on the left side of the abdomen with internal septations and absent left kidney.

Exploratory laparotomy was planned. Intra operative findings revealed a hugely dilated kidney and on aspiration there was thick pus. Multiple adhesions with thick peritoneum were present. There was almost 14 litres of thick pus filling the whole of the left kidney. Here the huge hydronephrotic kidney was due to PUJ obstruction. Simple nephrectomy was done. Histopathological examination showed chronic pyelonephritis.

Patient came for regular follow up and is doing fine.

Discussion

Giant hydronephrosis is a rare condition. It is defined, in the adult, as a kidney containing more than 1 L of fluid and in the child as a kidney containing 2-4% of the body weight¹. Giant hydronephrosis is usually secondary to PUJ obstruction.² Radiological criteria include a kidney that occupies a hemi abdomen, meets or crosses the midline and is at least five vertebrae in length.³

Infected hydronephrosis is the bacterial infection in hydronephrotic kidney. Whereas pyonephrosis is the infected hydronephrosis associated with suppurative destruction of the parenchyma of the kidney in which there

is total or nearly total loss of renal function. There is a very thin line between these two conditions and where infected hydronephrosis ends and pyonephrosis begins is very difficult to determine clinically.

It may present in many ways but since this is a slow progressive disease it may remain asymptomatic for a long time and may not become apparent until middle age or later.² At times the accurate diagnosis in individual cases remains a challenge. A large abdominal mass or distended abdomen may be the only sign and this can be very confusing with many cystic abdominal conditions.⁴

All patients with giant hydronephrosis do not have similar anatomical configuration and functional status in renal units and therefore treatment has to be individualized in every patient.² When intervention is indicated, the procedure of choice has historically been open operative repair of the UPJ, usually dismembered pyeloplasty. However, less invasive endourologic approaches have gained popularity as an initial procedure of choice in many centers. Most recently, laparoscopic pyeloplasty has gained acceptance in centers with laparoscopic expertise.

Apart from staged procedure with preoperative decompression and pyeloplasty, procedures like Calycocystostomy and Boari flap calycovesicostomy have been recommended in cases with massive calyceal dilatation and severely compromised peristalsis in the collecting system.⁵ One study has advised nephroplication and nephropexy as an adjunct to improve drainage after relief of obstruction.⁶

For nonviable kidneys, nephrectomy is the choice. Rate varies from 30 -70 % and various studies have been published showing even lap nephrectomies have been successful inspite of space constraints.^{1,3,7,8}

Conclusion

Inspite of our best efforts abdominal lumps keep on creating diagnostic dilemmas. Though Giant hydronephrosis is an uncommon cause it should be kept in differential diagnosis of intraabdominal cystic mass. Despite widespread use of prenatal ultrasound and development of new diagnostic techniques, giant hydronephrosis still maybe seen in all age group but the biggest question that still remains with us today is that why has this patient presented so late? Is it because of the unavailability of health facilities, is it because of financial crisis or is it sim-

ply because of lack of awareness of the patient? Much needs to be answered.

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