Huge Hydronephrosis in Pregnancy : Managed with D-J Stent

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Introduction

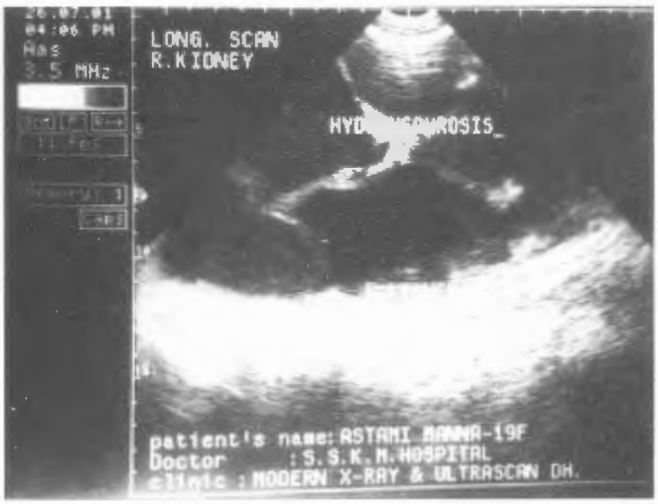
Pregnancy in the presence of pre-existing huge hydronephrosis is a rare but serious event due to risk of pyelonephritis leading to maternal and fetal complications. Pregnancy itself can enhance the obstructive uropathy due to hormonal and mechanical factors. We report such a case who required ureteral stenting in pregnancy.

Case Report

Mrs. AM, a 19 year old woman attended the gynecology department on 9th May, 2001 with amenorrhea for 9 weeks and L.M.P. on 4.3.2001. She was suffering from dull aching right loin pain for last six months when she had attended the Urology department. At that time her U S G revealed right sided huge hydronephrosis and intravenous urography showed a very poorly excreting right kidney. Her radioisotope 99 mtc DTPA renal scan showed poor perfusion and poor excretion of radioligand by the right kidney and a renogram showed marked cortical dysfunction and obstructive pattern at the pelvi-ureteric junction. While renal surgery was contemplated, she conceived and wanted to continue with her pregnancy.

A physical examination revealed mild pallor and B.P-110/70 mm of Hg. Abdominal examination showed – a huge lump in the abdomen extending from right loin to almost right iliac region. Vaginal examination showed a uterus of 9-10 weeks size. Her Hb was 8.7 gm%, blood urea – 12 mg/dl and serum creatinine – 0.7 mg/dl. Urine showed plenty of pus cells and RBCs and more than $1x10^5$/ml E.coli in culture. U S G done on 7*th* June, 2001 showed a single viable fetus of 14 weeks gestation. She was given cephalexin orally for 15 days along with folic acid, isoxsuprine and bed rest. But she had repeated attacks of loin pain, fever with chill, rigor and vomiting indicating pyelonephritis and therefore, drainage of the hydronephrotic kidney was considered. After making the urine sterile, a double – J stent (26 cm, 6 Fu) was inserted into the dilated right pelvis along the right ureter through a cystoscope, under general anesthesia on 23th June, 2001 (at 16 weeks). Her symptoms were relieved and the size of the mass was reduced to some extent following stenting. She was discharged with advice for prophylactic antibiotics (ampicillin) along with with folic acid iron and calcium tablets.

She was carefully monitored clinically with biweekly estimation of blood urea, creatinine, urine culture and serial USG. USG showed persistent right hydronephrosis



Photograph 1 : USG showing right sided hydronephrosis.

She was readmitted to the maternity ward on 30th September, 2001 as she developed asymptomatic bacteriuria (E. coli-Colony count<10000/ml) along with IUGR and was treated with cephalexin, oral glucose, intravenous aminoacid infusion and bed rest.

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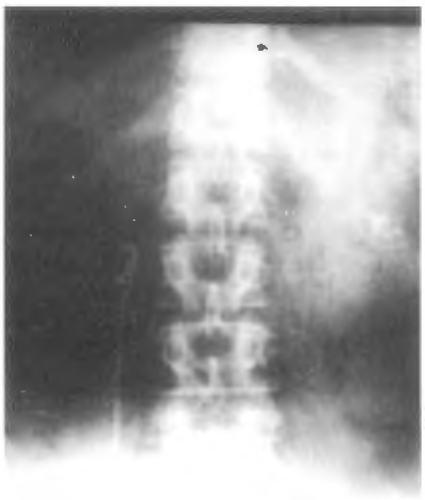
On 21st November, 2001, at 37 weeks, an emergency LSCS was done due to fetal bradycardia and scanty liqor. A living male baby weighing 2.2 Kg was born. The postoperative period was uneventful. A plain x-ray of the abdomen showed D-J stent in situ (Photograph 2). It was removed in the Urology department on the ninth day and thereafter both mother and baby were discharged in good condition.



Photograph 2 : Plain x-ray of abdomen showing D-J stent in situ (upper end in renal pelvis)

She successfully underwent pyeloplasty on her right kidney in March 2002.

Discussion

Double-J ureteric stent is a very safe and effective device for draining the hydronephrotic kidney into the bladder without need of external diversion. The J shaped upper and lower ends are placed in renal pelvis and bladder respectively, thus preventing its spontaneous expulsion and migration. It is well tolerated and can be kept for a long duration[1]. Eckford and Gingell[2] described 10 women in whom ureteral obstruction in pregnancy was relieved by stenting. Our patient also successfully continued her pregnancy with the help of D-J stent.

References

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