Introduction

Vesical calculus-complicating pregnancy is rare. We are presenting a case of a pregnant woman with a large vesical calculus which was diagnosed early in pregnancy. Early diagnosis can help in preventing morbidity of pyelonephritis, recurrent urinary tract infections and obstructed labor. A high index of suspicion for renal calculus is needed in pregnant women when they present with recurrent urinary symptoms and infection.

Case Report

A 23-year-old primigravida at 13 weeks of gestation presented to the antenatal clinic of the urban health center with urgency, dysuria and increased frequency of urine. On examination a mobile hard mass was felt in the right iliac fossa. On per vaginal examination a large bony mass was felt and a probable diagnosis of bladder stone complicating pregnancy was made. She was referred to the tertiary hospital where an ultrasound showed mild bilateral hydronephrosis and a large vesical calculus measuring 8.3 cm causing dense acoustic shadowing obscuring the bladder base [Figure 1]. There was no significant post void residue. Ultrasound also confirmed the presence of a single live intra uterine fetus corresponding to the gestational age. Urine microscopy showed the presence of pus cells. Urine culture grew Enterococcus which was sensitive to Ampicillin.

She was referred to the urologist and underwent open cystolithotomy under spinal anesthesia. Intra operative cystoscopy revealed bladder trabeculation with stone sitting in the anterior wall of trabeculation. Two small diverticuli were seen. Right ureteric orifice was seen refluxing and pus flakes were present. On cystolithotomy a 8 × 7 cm stone was removed. Post operatively she had continuous bladder drainage for 2 weeks and was treated with appropriate antibiotics. She also received antibiotic prophylaxis till delivery. She delivered normally a live-term baby girl of Apgar 9 and 10 and birth weight 2.42 kg at 38 weeks of gestation and is on regular follow up and doing well.

Discussion

Renal stone disease in pregnancy is very rare; the incidence being one in 2000-3300 of pregnancies.[1] Rarer still is vesical calculus-complicating pregnancy. Only 10 cases of vesical calculus have been reported so far.[2] There is no evidence to state that pregnancy increases the risk of stone formation.

Congenital and acquired diverticula of the urinary bladder may be a reason for stasis and development of calculus.[3] Foreign bodies like wire, needles and intra uterine devices migrating to the urinary bladder can result in stone formation.[4] Vesical calculus
can be asymptomatic or can present with supra pubic pain, dysuria, frequency, hesitancy, terminal hematuria and sometimes urinary retention. There can be recurrent episodes of urinary tract infections in women with vesical calculus in pregnancy. Persisting pyelonephritis despite appropriate and adequate antibiotic therapy should prompt the search for obstruction and stone disease in pregnancy. Our patient presented with urinary symptoms and a clinical diagnosis of vesical calculus which was later confirmed by an ultrasonogram. Vesical calculus can cause obstruction of labor and formation of vesicocutaneous fistula following bladder stone removal.

Although transvesical litholapexy is the preferred choice of treatment, open supra pubic cystotomy is indicated for removal of large vesical calculus. In case of large vesical calculus the potential danger of complications in labor outweigh the risk of intervention during pregnancy.

A high index of suspicion for vesical calculus is needed in women who present with urinary symptoms and recurrent urinary tract infections in pregnancy. Such women can present to their general practitioner with these symptoms. An early diagnosis of a large vesical calculus in pregnancy and its appropriate surgical management can help avoid serious complications. An important factor which favored this woman's outcome of pregnancy was the well-developed link of the urban health center with the tertiary unit and the continuity of care practiced in the urban health center. Thus it is not only important to suspect and diagnose an aberration from the normal but also to develop good links with local tertiary units and co-ordinate care for the individual patient.

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