

PREGNANCY AFTER BLADDER AUGMENTATION. RETROSPECTIVE CASE SERIES.

Hypothesis / aims of study

Bladder augmentation is a procedure performed with increasing frequency. However, clinical experience published concerning pregnancy after urinary reconstruction is limited. Adverse outcomes in women who have undergone such operations may put them or their fetuses at risk and can disrupt the reconstruction or impair renal function. The aim of the study was to present the maternal, neonatal and urological clinical outcomes from women who got pregnant and delivered after bladder augmentation.

Study design, materials and methods

Retrospective case series. Inclusion criteria: (1) women who had major reconstruction surgery of the urinary tract and got pregnant, (2) normal basic evaluation of renal function at beginning of pregnancy, (3) negative urinary cultures at beginning of pregnancy, (4) follow up at least monthly in combined high-risk urology-obstetrics outpatient clinic. Files from women who had bladder augmentation were reviewed and complications such as prematurity, urinary tract infection (UTI), urinary obstruction and intestinal obstruction were recorded. Maternal renal function was assessed postpartum to diagnose any impairment.

Results

Eleven women were found to fulfil the inclusion criteria (mean age at reconstructive surgery: 9.5-years-old, mean age at delivery 26.3-years-old). Six of them had clam cystoplasty and the rest had ileocecal sigmoid cystoplasty. Five women (45.4%) had at least one episode of complicated UTI during pregnancy. There were no cases of urinary obstruction or intestinal obstruction. Five women delivered vaginally (3 spontaneous vaginal deliveries, 2 ventouse deliveries) and the remaining six were delivered by caesarean section. Four of them (36.3%) delivered prematurely (1 pre-eclampsia, 1 premature prelabour rupture of membranes, 2 preterm labour). Mean birthweight was 2750 gr. All newborns were discharged without further complications and puerperium was uneventful in all patients. No women were found to have renal function impairment postpartum.

Interpretation of results

Pregnant women who had reconstructive urological procedures such as bladder augmentation appear to be at risk of a multitude of complications with regard to maternal renal function and fetal and neonatal outcome. Close antenatal surveillance is mandatory to secure optimum maternal and neonatal outcome. Urinalysis, renal function tests, renal ultrasound were performed monthly in the women participated in the study. Our results agree with the published experience that maternal kidney function or the result of reconstructive surgery is unlikely to be compromised during the pregnancy. Mode of delivery is decided upon obstetric indications. Caesarean section theoretically carries increased risk of bladder/ureteric injury, therefore a urologist should be present in the delivery team.

Concluding message

Pregnancy after bladder augmentation encloses higher risk for infection and prematurity. Close antenatal surveillance and constant operation between urologists and gynecologists is warranted in order to achieve optimum maternal and fetal outcome.

References

1. Br J Urol (1995) 75; 85-6.
2. J Urol (1990) 144; 457-9.
3. BJU Int (2003) 92; 773-7.

Specify source of funding or grant	None
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Papageorgiou General Hospital Ethics Committee, Thessaloniki, Greece
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes