



UROLOGICAL COMPLICATIONS AFTER OBSTETRICS AND GYNAECOLOGICAL SURGERIES - A RETROSPECTIVE ANALYSIS OF OUR INSTITUTIONAL EXPERIENCE

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ABSTRACT Bladder being the most common injury 70% and most commonly treated as primary repair. Female genital and urinary tracts are anatomically closely related –Hence potential for injury when operating on other. Risk of damage increases- Altered anatomy/ Adhesions / Intraop bleed. Urinary tract iatrogenic injury in our study is 1% which is below the acceptable % (0.5 to 1.5%).

KEYWORDS : Urological Complications After Obstetrics And Gynaecological Surgeries

INTRODUCTION

Bladder being the most common injury 70% and most commonly treated as primary repair. Female genital and urinary tracts are anatomically closely related –Hence potential for injury when operating on other. Risk of damage increases- Altered anatomy/ Adhesions / Intraop bleed. Urinary tract iatrogenic injury in our study is 1% which is below the acceptable % (0.5 to 1.5%).

MATERIALS AND METHODS

Retrospective analysis of all patients who underwent obstetrics and gynaecological surgeries during the period between August 2016-2018 in our institute. Total no of 12000 cases were included in the analysis. Out of those cases 9000 were LSCS and 3000 were hysterectomies. History with clinical examination and relevant lab investigations were done for complicated cases. We analyse the site/etiologic character of injury/ etiologic disease of OBG surgery and therapeutic success rate with respect to diagnosis and treatment of complications.

TOTAL CASE DISTRIBUTION

Of the 9000 LSCS cases 3000 were elective and the rest were emergency. Of those hysterectomies 2850 were open surgeries and 150 were laparoscopic surgeries.

TYPES OF SURGERIES DONE IN PATIENTS WITH URINARY TRACT INJURIES

OPEN SURGERY	COMPLICATIONS
Vaginal hysterectomy	0.4%
Myomectomy	0.05 %
Trans-abdominal hysterectomy	0.38%
Radical abdominal hysterectomy	2.8%
LSCS	0.08%
LAPAROSCOPIC SURGERIES	
Lap assisted vaginal hysterectomies	0.47%
Lap assisted radical vaginal hysterectomy	3.06%
Total laparoscopic hysterectomy	1%

OVERALL COMPLICATION RATES

	% VALUES	NO OF CASES
Bladder	70%	85
Ureter	25%	30
Vesico-vaginal fistula	2%	2
Uretero-vaginal fistula	2%	2
Renal	1%	1
Total	100%	120

ETIOLOGICAL DISEASES FOR INJURIES

	Bladder N=85	Ureter N=30	VVF N=2	UVF N=2	Renal N=1
Myomas	50% (n=42)	27% (N=8)	50% (N=1)		
LSCS	32% (N=29)				
Cervical cancer	4% (N=3)	35% (N=9)			

Adenomyosis	10% (N=8)	8% (N=2)			
Prolapse uterus	4% (N=3)			50% (N=1)	
Endometrial cancer		13% (N=5)			100% (N=1)
Endometriosis		9% (N=4)			
Ovarian cancer		8% (N=2)	50% (N=1)	50% (N=1)	

MANAGEMENT OF INJURIES

Bladder injuries were most commonly managed by primary repair. Ureteral injuries were managed by Ureteral stenting, End to End anastomosis, Psoas hitch, Boari flap and Ureteroneocystostomy.

Renal injuries were dealt with primary repair. Vesico-vaginal fistula were treated with delayed Transvaginal repair.

Uretero-vaginal fistula was treated with Ureteral stenting and End to End anastomosis.

PRIMARY BLADDER REPAIR PROTOCOL IN OUR INSTITUTE

- Define the extent of injury on table by Anterior cystotomy if necessary.
- B/L ureteric orifice and ureters, bladder neck verified.
- Primary bladder repair with 2-0 vicryl in two interrupted layers.
- Suprapubic cystostomy kept for minimum 10days.
- Prevesical drain were kept in all cases.
- Continuous bladder catheterisation done for all cases.

OBSERVATION

BLADDER INJURIES

Most injuries were noted along the posterior wall in about 83% of cases. Anterior wall injury was noted in 11% of cases and Dome in about 6%

Most outcomes were excellent in about 93% of cases. Complications like Infection, wound dehiscence and Fistula were seen in 7%

URETERAL INJURIES

Ureteric injuries are the Second most common injury 25% (n=30)

- LEFT SIDE COMMON : 70% (n=21)
- ON TABLE DIAGNOSIS: 30% (n=9)
- DELAYED DIAGNOSIS : 70% (n=21)
- B/L URETERIC INJURY : 0.3% (n=1)
- SITE OF INJURY :
LOWER 70% (n=21%)
MIDDLE -25% (n=7%)
UPPER -5% (n=2%)

FOLLOW UP

All complicated patients were followed up in OPD.

1st/ 3rd / 6th month follow up were followed up with Blood

investigation, urine analysis and urine culture at each visit. Positive cultures were treated with appropriate antibiotics. Follow-up CT and contrast studies were done after 3 months of treatment.

LIMITATIONS OF THE STUDY

Acute Ureteric injuries need high degree of suspicion. Most of times Urologists were called only after injuries. Minimal injuries were treated by the gynaecologists and self healed injuries were not included. Delayed presentations of complications with poor patient compliance or followed up elsewhere could not be identified.

DISCUSSION

Most bladder wall and one third of ureteral injuries are identified during surgery. Intraop cystoscopy / vaginoscopy with light emitting stents reduces the occult ureter injury rate.

CT with contrast studies may be helpful in distorted anatomy cases. Due to cost effectiveness it is not routinely used for all cases. Preop stenting was useful in pelvic adhesion cases.

Cystoscopy / Transvaginal Usg / Ivp / Digital Subtraction MRI are useful in difficult cases.

Ureter injury was common along the pelvic wall lateral to uterine artery, ureterovesical junction and the base of infundibulopelvic ligament.

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