

UROLOGICAL OBSERVATIONS IN WERTHEIM'S HYSTERECTOMY

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SUMMARY

Urological complications were studied in a 3 year period in 79 cases of Cancer Cervix undergoing Wertheim's Hysterectomy. The results were compared with two control groups of patients undergoing abdominal hysterectomy for benign lesions and normal O.P.D. patients. Urinary infection was seen in 17.8% cases, urinary fistula in 2.05% of the Wertheim's patients. Bladder atony was observed in 22.8% of cases which reduced to 1.3% within 6 months. This is an intrinsic problem of radical surgery as compared with controls and does not warrant compromise in the excision of cardinal ligaments.

INTRODUCTION

Wertheim's hysterectomy for cancer cervix involves mobilisation of the ureters and bladder to a great extent. Excessive excision of the lateral ligaments in course of dissection may lead to sympathetic nerve destruction leading to post operative bladder atony (Forney '81, Lower et al '81). More recently Yoshihiko et al (1991) have emphasised upon the step of identification of pars vasculosa and pars nervosa of the cardinal ligaments and preservation of the pars nervosa to avoid vesical dysfunction.

Routine catheterisation for varying periods are required for the management of this kind

of bladder dysfunction. In spite of everything the bladder atony of varying periods is encountered in 3% to 20% of cases, (Langley et al, 1980). Therefore a detailed urological assessment should be taken up before surgery and attention must be given to avoid any factor which later jeopardises the urological function.

MATERIALS AND METHODS

During the three years period of 1988-91 a total number of 79 Wertheim's hysterectomy were performed for early invasive cancer of the cervix at the Gynaecology division of Regional Centre for Cancer Research and Treatment, Cuttack. The mean age of the patients was 46.1 years. All the cases were

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subjected to preoperative routine urine examination, urine culture, Blood urea, Serum creatinine and Intravenous Pyelogram. The residual urine was measured in all these cases before and after surgery and on removal of the catheter after 10 days. Along with this a control group of 30 cases of mean age of 45 years who underwent abdominal hysterectomy for benign lesions and 30 normal O.P.D. patients were taken up for urological observations. The urological profile of the cancer patients were compared with the control group. A residual urine volume of 100 ml. or more was considered abnormal.

OBSERVATION AND DISCUSSION

All the 79 cases of Wertheim's hysterectomy were subjected to both preoperative and postoperative urine culture with a view to look for the effect of indwelling catheter for 10 days. As seen in Table I, 15 cases showed culture positive U.T.I. which required treatment. Preoperative intravenous pyelogram in 72 patients was normal. Double ureters were seen in four cases and borderline hydronephrosis was seen in 3 cases accompanied by large fungating cervical growth. Postoperative pyelogram was done in 4 cases where ureteric injury was handled. Two cases had hydronephrosis

which persisted after surgery.

The blood biochemical examination were normal before surgery. Post operatively two cases went into renal failure for varying length of time and went into abnormal biochemical picture. Both the cases had ureteric tunnel infiltration due to stage-IIB disease.

Urinary infection of 17.8% was handled easily with appropriate drugs (Table II). Intra-operative ureteric injury encountered in 2 patients of stage-IIB, where reimplantation into the bladder was undertaken. Postoperative ureteric fistula was seen in one case and vesicovaginal fistula was seen in one case accounting for 2.08% in the series. The former was repaired after 2 months and the latter closed spontaneously. The urinary fistula rate had declined over the years and varies between 1%-3% (Orr et al, 82, Photopoulos '90).

Keeping in mind the bladder atony problems associated with Wertheim's hysterectomy the residual urine was measured both preoperative and postoperatively in all the 79 operated cases. None of the cases had preoperative residual urine of more than 10 ml. whereas 22.8% cases had more than 100 ml. residual urine beyond 10th day (Table III). Further bladder drilling had to be done in these cases. After 3 months 11.4%

Table I

Pre and Postoperative Urological Assessment

Investigation	Preoperative		Postoperative	
	Normal	Abnormal	Normal	Abnormal
Urine Cytology	79	Nil	64	15 (17.8%)
Urine culture & sensitivity	79	Nil	64	15 (17.8%)
I. V. P.	72	4 (Cong) 3 (Acquired)	-	2 (2.5%)
Residual Urine	79	Nil	61 (11.2%)	18 (22.8%)

Table II

Urological Complications to Surgery and Management

Complications	Number	Percentage	Result of Management	
			Cure	Persistence
Infection	15	17.8	15	Nil
Incomplete voiding	18	22.8	8	10 (varying period)
Urge incontinence	1	1.2	1	Nil
Ureteric injury	2	2.5	2	Nil
U. V. F.	1	1.2	1	Nil
V. V. F.	1	1.2	1	Nil

Table III

Bladder Dysfunction in Cases and Controls

Residual Urine	Post Wertheim's (79 cases)		Benign ABD surgery (3 cases)		Normal OPD patients 30 cases	
	No.	%	No.	%	No.	%
Pre-operative						
0 - 10 ml.	79	100	29	96.7	30	100
10 ml.	Nil	-	1	3.3	Nil	-
10th day of operation						
10 ml.	18	22.8	Nil	-	-	-
3 months						
10 ml.	9	11.4	-	-	-	-
6 months						
100 ml.	1	1.3	-	-	-	-

had a residual urine of more than 100 ml. and only one case had persistent bladder atony beyond 6 months. To understand the definite influence of radical surgery, a control group of 30 patients who underwent abdominal hysterectomy and 30 normal O.P.D. patients

were subjected to residual urine measurement. Only 3.3% of abdominal surgery patients had a residual urine of 10 ml or more and the rest of the control group patients did not have any abnormal residual urine. Langley et al, 1980 reported that 3-20% of cases of Wertheim's

hysterectomy had bladder atony. It was attributed to the wide resection of the lateral ligaments causing damage to pelvic nerves. Recently Yoshihiko et al, 1991 strongly suggest to preserve the pars nervosa component of the cardinal ligament to avoid bladder atony. Others like (Photopulos '90) are of the opinion to perform a complete radical job than to preserve large portion of the lateral ligaments. In the present series where dissection was not compromised only 1.3% of cases had prolonged bladder atony. The immediate bladder atony observed in 22.8% could be managed effectively.

SUMMARY AND CONCLUSION

Urological complications were studied over a 3 year period in 79 patients of cancer cervix undergoing Wertheim's hysterectomy. Immediate bladder atony was observed in 22.8% of cases which reduced to 1.3% within 6 months. This is an intrinsic problem of the surgery itself

as could be compared with controls having simple abdominal hysterectomy and normal O.P.D. patients.

Urinary infection was seen in 17.8% of cases which was treated easily. The urinary fistula rate was 2.05% which was fully corrected subsequently. The urinary problems seem to be non alarming to adopt any surgical compromise.

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