

Radical Hysterectomy for Carcinoma Cervix: A Clinical Analysis of 160 Cases

Sarma HK*

Department of Obstetrics & Gynecology, Jorhat Medical College & Hospital, India

***Corresponding author:** Hem Kanta Sarma, Professor & HOD, Department of Obstetrics & Gynecology, Jorhat Medical College & Hospital, Jorhat, Assam, India, Email: sarmahemkanta@gmail.com

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Abstract

Background: In this study an attempt was made to study the following

- Advantage and disadvantage of different approaches of radical Hysterectomy with special reference to abdominovaginal approach
- Complications and side effects of the procedure with special reference to post CTRT (Chemo Therapy and Radio Therapy treated) cases

Method: It is a prospective clinical study. It was conducted between December 1990 and August 2016 in different institutions of Silchar, Guwahati and Barpeta situated in ssam (North East India). It included 160 carcinoma cervix cases of stage Ia to stage IIb, operated by three different approaches of Radical Hysterectomy.

Results: Maximum numbers of cases in the series were in stage IIa (51.25%). Most of the cases (50%) were performed by the Abdominovaginal approach wound gapping was the commonest (5%) complications followed by ureteric fistula (0.625%) secondary haemorrhage (2.50%) etc. Out of 90 cases in 5 years follow up there were 20 cases (12.50%) recurrences.

Conclusion: Different approaches of radical hysterectomy have their own advantages. Abdominovaginal approach is more useful for stage II a carcinoma cervix where more liberal excision of vagina is helpful. It is also useful in obese patients, where abdominal approach is more difficult for vaginal dissection. In this method damage to the urinary bladder and its innervations is minimum which the reason for less post operative morbidity. Post CTRT cases are technically difficult but if performed carefully give similar result.

Keywords: Radical Hysterectomy; Abdominovaginal approach; Post CTRT; Carcinoma Cervix

Synopsis

Carcinoma cervix is the commonest malignancy in women in India. Internationally it is the second most common killer disease in Woman [1] more than 8% of the global burden occurs in developing countries [2]. Since Wertheim's publication of 270 cases of radical

Hysterectomy in 1905 there have been many developments in cancer surgery for cervical cancer [3]. Role of Radical Hysterectomy in management of early Cervical Carcinoma is well established. Stage II a cases are also good candidates for this procedure.

In this series an attempt was made to study the following

1. Advantage and disadvantage of different approaches of radical Hysterectomy with special reference to abdominovaginal approach.

2. Complications and side effects of the procedure with special reference to post CTRT (Chemo Therapy and Radio Therapy treated) cases.

Study design: It is a prospective clinical study.

Materials and Methods

This study was conducted during December 1990 to August 2016 and consists of 160 cases. It consists of carcinoma cervix cases of stage Ia to stage IIb including 50 cases post CTRT (Chemo Therapy and Radio Therapy treated cases). The cases included in the study were operated by the author himself in different institutions of Silchar, Guwahati and Barpeta situated in Assam (North East India) 3 Different approaches were followed for radical hysterectomy in this series as follows:

1. Classical Abdominal approach - Wertheim's hysterectomy -79 cases.
2. Abdomen vaginal approach (Modified schauta Technique)-80 cases. Initial abdominal dissection includes bilateral lymphadenectomy, ureteral dissection upto ureteric canal, mobilisation of urinary bladder anteriorly and rectum posteriorly, division of uterosacral ligament and division of parametrium lateral to the ureter. Next step is vaginal approach - includes vaginal dissection through a circular incision in retrograde manner, division of paracolpos, cardinal ligaments and utero sacral ligament followed by delivery of uterus through the vagina. Vault is closed by a few interrupted sutures. Abdomen is closed as usual. This is in modification of synchronous abdomino-vaginal radical hysterectomy where 2 surgical teams operate simultaneously keeping the patient in a special modified trendelenburg position [4].
3. Two step surgery - Initial Bilateral Lymphadenectomy followed by Radical Hysterectomy - 1 case

Results and Observations

Out of total 160 cases most of the cases were of stage 2 a (51.25%) Though there were cases (7.50%) in stage 2 b preoperatively another 5 cases (3.12%) were found to be in this stage postoperatively

Stage	Number of cases	%
Stage I	61	38.13
Stage II a	82	51.25
	Preoperative 12	7.5
Stage II b	Postoperative 5	3.12
	Total 17	10.62

Table 1: showing staging of Carcinoma cervix.

Techniques	Number of cases	%
Wertheim's operation (Abdominal)	79	49.38
Abdomino Vaginal	80	50
Bil. Lymphadenectomy followed by Radical Hysterectomy	1	0.625

Total number of case: 160

Table 2: Showing the distribution of different techniques of operation.

As per classification of Rutledge and Colleagues at MD Anderson Hospital (1974) in this study the cases may be grouped as follows [5].

Type of Radical hysterectomy	Number of cases	%
Class II	8 Cases	10%
Class III	150 Cases	93.75%
Class IV	2 Cases	1.25%

Table 3: Showing the different type of operation.

Most of the cases (50%) in this series were performed by the Abdominovaginal approach. Wound gapping was the commonest complication in this study happened in 8 (5%) cases 1 patient (0.625%) also developed Burst abdomen in 2 cases (1.25%). There was inadvertent injury to the ureter which was repaired primary by ureterovesical implantation successfully. 1 patient (0.625%) developed ureteric fistula postoperatively which was successfully repaired after 3 months. In one patient (0.625%) there was inadvertent injury of the ileum which was successfully repaired in the same sitting this was a post CTRT case.

Complications	Number	%
Secondary haemorrhage	4	2.5
Wound gapping	8	5

Burst Abdomen	1	0.625
Ureteric fistula	1	0.625
Ureteric injury	2	1.25
Intestinal Injury	1	0.625
Urinary Bladder Injury	1	0.625

Total No of Cases - 160

Table 4: Showing the distributions of complications.

Follow up period	Number of cases	%	Recurrences	
Up to 5 years or more	90	56.25	20	12.5
< 5 years, > 1 year	50	31.25	9	5.62
1 year	20	12.5	2	1.25

Total No. of cases: 160

Table 5: Showing the follow up and recurrences.

Discussion

In this study 80 cases (50%) were done by abdomino vaginal Technique. This technique popularly known as modified Schauta technique has the advantage of vaginal dissection for liberal removal of vagina wherever indicated. It also allows precise dissection with least damage to the urinary bladder and its innervations leading to minimum post operative morbidity, specially urological. Only limitation of the procedure is extra time required for 2 stage procedure. In the present series average time taken for the complete procedure was 120 minutes to 160 minutes. It was advantageous to choose the abdominovaginal procedure in stage II (a) cases. Indwelling catheter was maintained for 5 days in most cases. Because of early ambulation other post operative morbidities were also less.

In post CRTT cases due to radiation effect on the normal and diseased tissues there are lot of fibrotic changes in the pelvis leading to anatomical deformities-adhesion to the surrounding viscera and tissues, lack of cleavage etc. This lead to difficulty in dissection. Chances of injury to the viscera increase due to all these effects. To avoid injury to the structures a specially innovated technique of hydro dissection (by the author himself) was used in this series [6]. In this technique good amount of Ringer lactate or Normal saline is pushed with a 10 ml syringe, some time with the help of a small feeding tube around the structure to be dissected. This method is helpful in completing the dissection and completes the surgery without damage vital structure in most cases.

Only in 1 case (0.5%) there was urinary bladder injury and ileal injury in another case. Both the cases were repaired primarily Cetina et al. (2009) in their study of 80 patients showed that radical hysterectomy has a great role in the treatment of post EBRT-CT cases in the FIGO stage IB2 to IIb [7].

Da. Vinci Robotic system has revolutionised the cancer surgery by offering more precise surgery with minimal blood loss and minimal physical strain to the surgeon [8] Of course this approach is not affordable to all unlike the approaches used in the present series.

Conclusion

In treatment of Carcinoma Cervix Radical hysterectomy is a well established method of treatment for which different approaches of surgery have their own advantages. Especially in Stage I (a) cases where more vaginal excision will be helpful and in obese patient where abdominal approaches may be more difficult, abdomino vaginal approach is more advantageous. This approach is helpful in minimizing damage to the urinary bladder and support leading to less post operative morbidity

Post CRTT cases are technically difficult but if performed carefully give similar result to the conventional primary surgery.

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