Hysterectomy in Local Recurrent Carcinoma Cervix following Concurrent Chemoradiation

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ABSTRACT

Concurrent chemoradiotherapy is the standard treatment for locally advanced cervical cancer. However, residual or subsequent local recurrence is 10 to 30%. Several studies have reported the usefulness of salvage simple total hysterectomy, and efforts have been made to reduce complications. This is a case report of 64 years para 5 postmenopausal lady diagnosed as squamous cell carcinoma of cervix stage II B, had received concurrent chemoradiation. After 6 weeks of its completion, MRI revealed no residual disease. However, 6 months of no residual, USG and MRI revealed cervical lesion. With the suspicion of local recurrence, patient underwent total abdominal hysterectomy with bilateral salpingo-ophorectomy. She developed wound infection and per rectal bleeding which were treated. During her subsequent follow up visit, vault smear was negative and enhanced CT scan revealed no recurrence.

INTRODUCTION

Cervical cancer is the fourth most frequent malignant cancer in women throughout the world, often leading to death. In 2020, 604,127 new cases of cervical cancer were reported, leading to approximately 341,831 deaths.1 Radiotherapy (RT) is an effective treatment for cervical cancer, and concurrent chemoradiotherapy is the standard treatment for locally advanced cervical cancer. However, residual or subsequent local recurrence is 10 to 30%, and these cases have poor prognosis.2 Radical hysterectomy (RH) has been used for local recurrent or residual cervical cancer post-RT, but the rate of serious complications is high and tolerance is low. Several studies have reported the usefulness of salvage simple total hysterectomy, and efforts have been made to reduce complications.3,4 In this case report, in local recurrent carcinoma cervix following concurrent chemoradiation, patient underwent adjuvant hysterectomy instead of RH thereby minimizing the serious complications.

CASE REPORT

A 64y ears para 5, postmenopausal lady, non smoker, was diagnosed with poorly differentiated squamous cell carcinoma of cervix on cervical biopsy. She had presented with post menopausal bleeding of 35 days duration. Her per vaginal findings revealed cervical growth with eaten up cervix and involvement of bilateral parametrium. MRI had revealed carcinoma cervix involving the paramerium (Figure 1). She was staged as carcinoma cervix stage II B.

Patient received concurrent chemoradiation (CCRT) with Cisplatin 50 mg weekly 4 doses and external beam radiotherapy (EBRT) 50 Gray (Gy) / 25
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3X intracavitary radiation therapy (ICRT) 8 Gy. Patient was on regular follow-up and after 6 weeks post-ICRT, MRI revealed no residual disease and complete radiological response (Figure 2). After 6 months of no residual (i.e., after 8 months of ICRT), ultrasonography (USG) showed hypoechoic space occupying lesion in cervix of uterus (2.5x1.7) cm suspicious of malignancy. After one month, USG was repeated and showed (2.7x2.1) cm lesion in cervix. MRI confirmed (1.5x1.5x1.4) cm cervical lesion (Figure 3). Her chest X-ray was normal and whole-body bone scan had no definite evidence of distant skeletal metastasis.

On per vaginal examination, synchia was present in vagina, even after breaking the synchia, cervix was not well visualized and lesion or growth could not be seen. Hence, cervical biopsy could not be undertaken and with the view of suspicious of local recurrence, she underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAH with BSO). Her per operative findings where uterus was atrophied (4x3) cm and cervical growth of (2x1) cm was present on anterior lip of cervix. However, histopathological report was negative for residual tumor. Her immediate post operative period was uneventful and was discharged on 4th postoperative day. However, 3 months post surgery patient developed wound infection eventually, wound gap and later resuturing was done and on 11th POD, all stitches were removed and wound recovered. After 6 months of wound recovery (approximately 21 months following radiation therapy), patient had per rectal (P/R) bleeding. For this, she underwent colonoscopy and sigmoidoscopy which revealed normal vascular pattern, no growth, ulcer or polyp and was diagnosed as radiation proctitis. After one month, colonoscopy was repeated and revealed radiation colitis with superficial ulcers. She was treated with argon plasma coagulation 5 sessions, following which she had no P/R bleeding. After 14 months of surgery, patient was asymptomatic, her vault smear was negative for intraepithelial lesion or malignancy and the contrast enhanced CT scan revealed no locoregional recurrence, no significant lymphadenopathy or ascites (Figure 4). She is asked to follow-up after 3 months.
The distribution of cervical carcinoma cases is bimodal, with peaks at 35 to 39 years and 60 to 64 years of age and is seen in multiparous lady. This is a case of 64 years, para 5, postmenopausal lady.

Standard treatment of advanced cervical cancer is concurrent chemoradiation. A dramatic improvement in survival when chemotherapy is combined with external-beam radiation therapy (EBRT) and intracavitary radiation therapy (ICRT) have made concurrent cisplatin-based chemotherapy with radiation, the treatment of choice. A randomized trial to compare neoadjuvant chemotherapy followed by hysterectomy versus adequate chemoradiation for women with stage IB2, IIA, or IIB squamous cell carcinoma of the cervix suggests the superiority of chemoradiation. However, residual or subsequent local recurrence is 10-30%, and these cases have poor prognosis. In this case, after being diagnosed squamous cell carcinoma of cervix stage II B, patient received concurrent chemoradiation. After 6 weeks of its completion, MRI revealed no residual disease and complete radiological response (Figure 2). However, 6 months of no residual, USG and MRI revealed hypoechoic space occupying lesion in cervix of uterus suspicious of malignancy (Figure 3).

For women who present with a local relapse confined to the cervix or vagina, treatment directed to the site of recurrence can be performed with curative intent. Options include hysterectomy or pelvic exenteration in patients who have received prior radiation therapy (RT), or RT in those who have not received RT or are not surgical candidates; the choice depends on the patient’s prior treatment. Berek JS et al. concluded that for persistent central pelvic disease and central pelvic recurrent disease after radiation therapy, extracavitary hysterectomy, radical hysterectomy, or pelvic exenteration should be considered. Hysterectomy for local recurrent cervical cancer post-RT or post-CCRT seems effective and tolerable. Nakasone T et al. concluded adjuvant hysterectomy could be a treatment of choice for local recurrent cervical cancer post-RT. Similarly, in this case, with the view of suspicion of local recurrence cervical cancer, patient underwent total abdominal hysterectomy with bilateral salpingo-ophorectomy (TAH with BSO).

Several studies have reported the usefulness of salvage simple total hysterectomy, and efforts have been made to reduce complications. The role of hysterectomy in locally advanced carcinoma of cervix after sub-optimal chemoradiation conducted in Bangalore, India by Kundargi RS et al. found that the most common complication in the postoperative period was wound infection. Other complications included bladder atony and paralytic ileus. All these were managed conservatively and no morbidity was seen due to these complications. In this case as well, patient had developed wound gap requiring resuturing.

In a prospective longitudinal study conducted by Pervin S et al. adjuvant hysterectomy in patients with residual disease after radiation for locally advanced cervical cancer, among 40 patients, 29 patients who underwent extracavitary hysterectomy, there were no surgical or postoperative complications. Among the 11 women who underwent radical hysterectomy, one patient had a rectal injury; one had bladder...
injury; and one experienced a vascular injury; the resulting intraoperative injury rate was 27%. All injuries were repaired successfully. The mean time of hospital stay was 8 days. During the postoperative period, two patients developed urinary retention (grade 1 by common toxicity criteria), and two had ureteral stenosis (grade 3 toxicity), which provided a postoperative adverse event rate of 36%. These postoperative events were treated successfully and resolved. Three patients (27%) had lymphedema (grade 2 toxicity) as late complications in the radical hysterectomy group. There were no late complications among the extrafascial hysterectomy group.

Postoperative complications after adjuvant hysterectomy for treatment of residual disease in patients with cervical cancer treated with RT, in a study by Ota T et al., according to the Radiation Therapy Oncology Group / European Organization for Research and Treatment of Cancer (RTOG/ EORTC) scoring system, grade III or IV late complications involving the rectum, small-bowel, or urinary tract were observed in five (14.3%) cases, three were stage II and two were stage III. The incidence of grade III and grade IV rectal complications were 0 and 2.9% (one patient), respectively. The incidence of grade III and grade IV urinary tract complications were 2.9% (one patient) and 5.7% (two patients), respectively. In this case report, twenty-one months following chemoradiation, patient had P/R bleeding which was diagnosed as radiation proctitis. She was treated with argon plasma coagulation. During her subsequent follow up visit, vault smear was negative and enhanced CT scan revealed no recurrence.

CONCLUSIONS

In cases of local recurrence of cervical cancer following concurrent chemoradiation, simple total abdominal hysterectomy, instead of radical hysterectomy, seems better because of reduced complications and better tolerability.

REFERENCES

7. Wright JD, Management of recurrent or metastatic cervical cancer. UpToDate. [Full text]