

## Long-term Follow-up of Recurrent Uterine Cervical Cancer: A Case Report

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### ABSTRACT

Carcinoma of the uterine cervix is a significant cause of mortality because of malignancy in women. Radiotherapy is a major treatment modality for invasive cervical cancer with good treatment outcome in early-stage patients. However, substantial treatment failures still occur in the advanced-stage patients. In this case report a long term follow up of a 58 years old woman with stage II cervical squamous cell carcinoma (SCC), who was considered inoperable due to her general condition, cardiac poor function and ischemic heart disease (IHD) has been reported. After full dose external radiotherapy the patient became disease free till 6 years and after local recurrence, she was treated successfully with total abdominal hysterectomy (TAH) and bilateralsalpingo-oophorectomy(BSO)as well as adjuvant chemotherapy with favorable results during a long term follow up of 14 years. It is concluded that long term favorable outcome may be achieved by intensive radiotherapy of uterine cervix SCC and probable recurrence could be managed successfully by surgical excision.

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## Introduction

Carcinoma of uterine cervix is a significant cause of malignancy-related mortality in women. Recently, concurrent chemoradiotherapy (CCRT) of locally advanced uterine cervix carcinoma has been associated with favorable results and increasing survival rate (1, 2).

Radiotherapy is a major treatment modality for invasive cervical cancer with good treatment outcomes in early-stage patients. However, treatment failure is still quite common in advanced-stage patients.

The best option for the radiotherapy of cervical squamous cell carcinoma (SCC) is a combination of external radiotherapy and brachytherapy (3). Previous studies have shown the failure rate of radiotherapy alone around 30% in stage IB-IIA and IIB SCC of the cervix; it increased to 50% in stage III patients (4, 5). Several risk factors, including advanced stage, bulky tumor size, adenocarcinoma or adenosqu-

amous carcinoma, low hemoglobin level, positive pelvic lymph node metastasis, and high serum SCC antigen (SCC-Ag) level, were found to be associated with poor prognosis in cervix cancer (6-8). Since the site and the extend of relapse greatly varies among patients and the initial high-dose radiotherapy causes some limitations for salvage therapy, the treatments for relapse are generally more individualized than initial treatments (9).

Many of these post-radiation recurrences can be successfully managed by surgical excision. Herein, we report a case of recurrent poorly differentiated cervical SCC and its long-term outcomes after a high-dose external radiotherapy.

## Case report

A 58-year-old woman with poorly differentiated cervical SCC in cervical biopsy

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was considered inoperable due to her general condition, poor cardiac function, and ischemic heart disease (IHD). The final pathology report indicated stage II cervical SCC.

The patient received a full dose of 7000 cGY pelvic radiation during 35 sessions of radiotherapy over 8.5 weeks. Post-radiation cervical exams by speculum showed erythema and deformation of the uterus cervix without ulceration. Close follow-up was continued and after a month, vegetation in the external part of the cervix was observed. Pap smear result indicated P1 stage (normal). The patient was closely followed-up and after 2 years, serial pap smears were still in P1 stage and cervical erythema had remained.

Finally, after 6 years, pap smear indicated PIII stage, and biopsy was performed. Pathologic assessments reported invasive differentiated non-keratinizing SCC, and the patient was referred for surgical intervention. After cardiac risk management by pacemaker insertion and medical therapy, total abdominal hysterectomy (TAH) and bilateral salpingo-oophorectomy (BSO) were performed. Pathological studies showed poorly differentiated SCC of the cervix.

The patient was treated by chemotherapy again [SFU (750mg × 3day) and cisplatin (40mg × 3day)]. After 5 months of chemotherapy, systemic evaluations including chest X-ray, sonographic assessment, and vaginal exams were performed. Normal vaginal cuff and rectovaginal septum were also assessed.

All physical exams have been almost normal during the follow-up period until the present time (14 years since the first presentation). Yearly follow-up is continued and suggested for the patient.

## Discussion

Today, CCRT is becoming the standard treatment for patients with locally advanced carcinoma of the uterine cervix or the early-stage disease with poor prognostic factors (10–14).

When added to radiation, cisplatin reduces the relative mortality risk of cervical carcinoma by 30–50% through decreasing local/pelvic failure and distant metastases. Chemoradiation showed significant advantages for local and distant recurrences. However, over 50% of

patients with recurrences were found to have distant metastasis after CCRT (15, 16).

Some other studies indicated that most patients with stage IIB tumors were treated with irradiation alone, and the 5-year survival rate was 60% to 65%; also, the pelvic failure rate ranged from 18% to 39%. In case of post-radiation recurrences, patients with limited pelvic recurrences, not fixed to the pelvic wall and without evidence of extrapelvic metastases, could be potentially treated by radical hysterectomy or pelvic exenteration(3).

When irradiation is combined with surgery, the complication rate tends to be somewhat higher, particularly due to injuries to the ureter or bladder (ureteral stricture, and ureterovaginal or vesicovaginal fistulas) (3).

Herein, we reported a long-term follow-up of a patient with poorly differentiated cervical SCC and favorable long-term outcomes after full-dose external radiotherapy. As we observed, the patient was disease-free for 6 years and after local recurrence, she was successfully treated with TAH, BSO, and adjuvant chemotherapy, and showed favorable results during a long-term follow-up of 14 years.

Hong et al. reported that the risk of treatment failure in advanced-stage cervical cancer patients, treated by radiotherapy alone, could be more precisely predicted by risk stratification. Independent risk factors for distant failure were advanced stage, SCC-Ag level > 2, and positive pelvic lymph nodes. The 5-year distant relapse-free survival rate was 83% for patients with bulky stage IB-IIA and IIB disease, SCC-Ag level < 2, and negative lymph nodes; the survival rate was reported 43% for patients with stage III disease, SCC-Ag level > 2, and positive lymph nodes (17).

Hong et al. in another study reported the long-term survival rates of recurrent SCC of the cervix after radiotherapy, isolated paraaortic lymph nodes relapse salvaged by radiotherapy or combined with chemoradiotherapy, and cervical relapse salvaged by surgery. According to the results, early detection of relapse with aggressive salvage treatment was essential for obtaining better outcomes. In addition, patients with persistent disease or relapse after complete remission showed similar results (18).

## Conclusion

Long-term favorable outcomes might be achieved by intensive radiotherapy of uterine cervix SCC and probable recurrence could be successfully managed by surgical excision.

## Conflict of Interest

The authors declare no conflicts of interest.

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