

**CASE REPORT****Adjuvant Chemotherapy For Figo Stage IIA2 Cervic Cancer:  
A Case Report**

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**Abstract**

**Introduction:** Cervical cancer ranked as the third most prevalent cancer among women. This case report is to examine the current status of adjuvant chemotherapy in the treatment of early-stage cervical cancer as documented in the literature. Currently, there is no established evidence supporting the therapeutic efficacy of adjuvant chemotherapy as a standalone treatment following radical hysterectomy surgery. Nevertheless, some literature recommend the use of adjuvant radiotherapy (AR), adjuvant chemotherapy (AC), or concomitant chemoradiotherapy (CCRT) as the standard adjuvant therapies for early-stage cervical cancer following radical hysterectomy with positive prognostic factor.

**Case report:** A 53-year-old female was diagnosed with stage IIA2 in April 2021. The histology type was determined to be keratinized squamous cell carcinoma, moderately well differentiated. The patient underwent a radical hysterectomy, resulting in the acquisition of uterine and cervical tissue measuring 11x11x6 cm. The histology results revealed moderately to poorly differentiated keratinizing squamous cell carcinoma, with no invasion of the parametrium or pelvic lymph nodes with vaginal cutting margin is free of tumor growth, but lymph vascular space invasion was present. Subsequently, adjuvant chemotherapy was administered using carboplatin (AUC 5) and paclitaxel for a total of 6 cycles. After 2 years with follow-up with CT-Scan examination in April 2023 confirmed the absence of any residual mass.

**Conclusion:** A radical hysterectomy combined with adjuvant chemotherapy has been shown to reduce the chance of recurrence or progressiveness of the disease, in which this patient did not experience a recurrence after two years of treatment

**Keywords:** Cervical Cancer, Adjuvant Chemotherapy, Radical Hysterectomy



## INTRODUCTION

Cervical cancer is a malignant neoplasm that affects the epithelium of the cervix. This disease leads to abnormal multiplication and changes in the surface cells of the cervix. Globally, cervical cancer ranks as the third most prevalent cancer among women, followed by breast and colorectal cancer.<sup>4,5</sup> In Indonesia, according to GLOBOCAN data for 2022, the estimated number of new cervical cancer cases is 36,633, accounting for 9.2% of the total. The development of cervical cancer is a gradual and progressive process. From the process of cell mutations then transforming into dysplastic cells, giving rise to epithelial abnormalities known as dysplasia.<sup>1-3</sup>

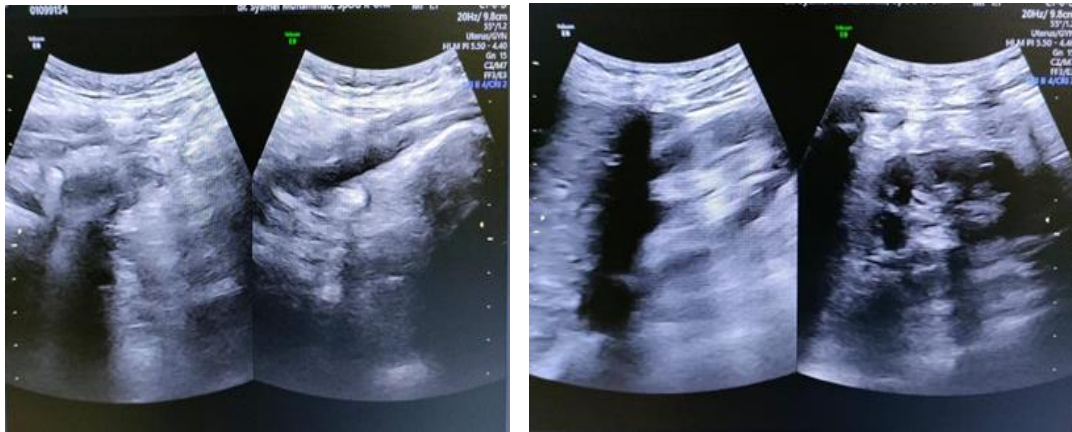
Interestingly, about 83% of new cases and 85% of deaths related to cervical cancer occur in developing countries. Moreover, cervical cancer is the primary cause of cancer mortality in East and Central Africa. Notably, Guinea has the highest incidence rate, with nearly 6.5% of women developing cervical cancer before the age of 75, and even higher rates among women under the age of 45. However, the majority of cervical cancer deaths can be prevented by implementing comprehensive cervical cancer prevention and control programs that ensure universal access.<sup>6,7</sup>

Accurate diagnosis is one of important things to provide optimal management for cervical cancer. The available treatment methods include surgery, radiotherapy, chemotherapy, or chemoradiation. Often, a combination of these methods is utilized to achieve the best outcome. The primary goal of these treatments is to eliminate or destroy as many malignant cells as possible, thereby promoting better overall health.<sup>5,10</sup> This case report aims to discuss the management and diagnosis of cervical cancer.

## CASE REPORT

Reported 53-year-old women at the M Djamil Hospital Polyclinic for a routine follow-up appointment. Two years ago patient preceding the hospital complained a significant amount of vaginal discharge for the past two years. The discharge was described as brownish-white, watery, and odorless, requiring the patient to change pads approximately 3-4 times daily. Additionally, the patient complained of vaginal bleeding like a spot. The patient also experienced a weight loss of 8 kg (51 kg to 43 kg) within four months and without history of smoking, alcohol consumption, or drug use. After confirmed diagnosis of cervical cancer stage IIA2 radical hysterectomy procedure with pelvic lymph node dissection was performed. Histology report found cervical tissue measuring 11x11x6 cm with poorly differentiated keratinizing squamous cell carcinoma, no invasion to the parametrium or pelvic lymph nodes with vaginal cutting margin is free of tumor growth, but lymph vascular space invasion was present. Subsequently, adjuvant chemotherapy was administered using carboplatin (AUC 5) and paclitaxel for a total of 6 cycles.

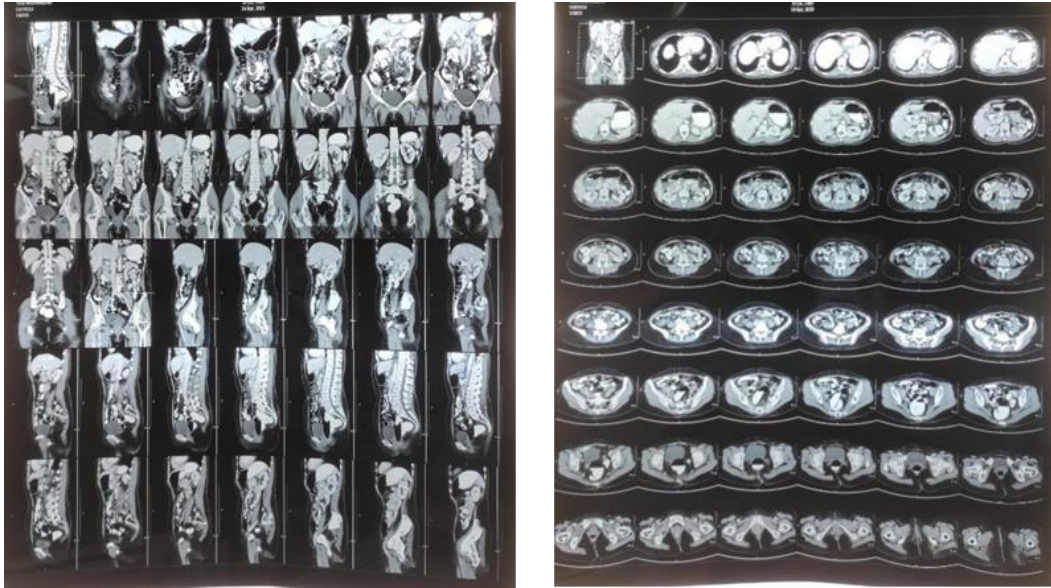
After 2 years of follow up Subsequently, she was referred to M Djamil Padang Hospital for further evaluation. The physical examination showed the patient had a moderate overall condition, with composentis cooperative awareness. Vital signs results were stable. In the general examination, no abnormalities were identified, and the abdominal examination did not reveal any enlargement. Gynecological examination found no abnormality at vulva and vagina, and Ultrasound found no residual mass or residif mass both at 1 and 2 years of follow up (Fig 1 and 2).



**Figure 1.** Ultrasonography results in 2 year after adjuvant chemotherapy



**Figure 2.** Ultrasonography results in two years after adjuvant chemotherapy



**Figure 3.** CT Scan Abdomen in two years after adjuvant chemotherapy

In the April 2023 CT Scan examination show no residual mass was observed. The patient has been regularly attending follow-up appointments in the polyclinic and no masses have been detected to date.

## DISCUSSION

Cisplatin 50 mg/m<sup>2</sup> every 3 weeks compared to cisplatin 50 mg/m<sup>2</sup> on day 1 and topotecan 0.75 mg/m<sup>2</sup> on days 1-3 every 3 weeks; a third arm received methotrexate, vinblastine, doxorubicin, and cisplatin (this third arm was discontinued early due to treatment-related death). Patients in the doublet group had significantly better outcomes compared to the cisplatin group alone, with a median OS of 9.4 months versus 6.5 months ( $p = 0.017$ ), a median PFS of 4.6 months versus 2.9 months ( $p = 0.014$ ), and a response rate of 27% versus 13%.<sup>26</sup>

Whitney et al.<sup>27</sup> showed a randomized comparison of fluorouracil plus cisplatin versus hydroxyurea as an adjunct to radiation therapy in stage IIB-IVA cervical carcinoma with negative para-aortic lymph nodes) found that 43 percent of 177 patients in the cisplatin/FU group and 53 percent of 191 patients in the HU group experiencing disease development. Progression-free survival (PFS) was significantly better with the CF regimen ( $p = 0.033$ ).

Level response ranged from 20% to 38% when 50 mg/m<sup>2</sup> of cisplatin was given every three weeks, with a median survival of 6-7 months. Similar results are produced by compounds such as carboplatin, paclitaxel, ifosfamide, and topotecan. Several randomized trials of CT versus palliative care have demonstrated the impact of palliative CT on survival. Mitomycin C, irinotecan, gemcitabine, and vinorelbine have response rates ranging from 8% to 17%; in non-epidermoid histology, the gemcitabine response rate was 4.5%, the paclitaxel response rate was 31%, and the vinorelbine response rate was 7.1%. The median duration of response to paclitaxel was 4.8 months.<sup>28</sup>

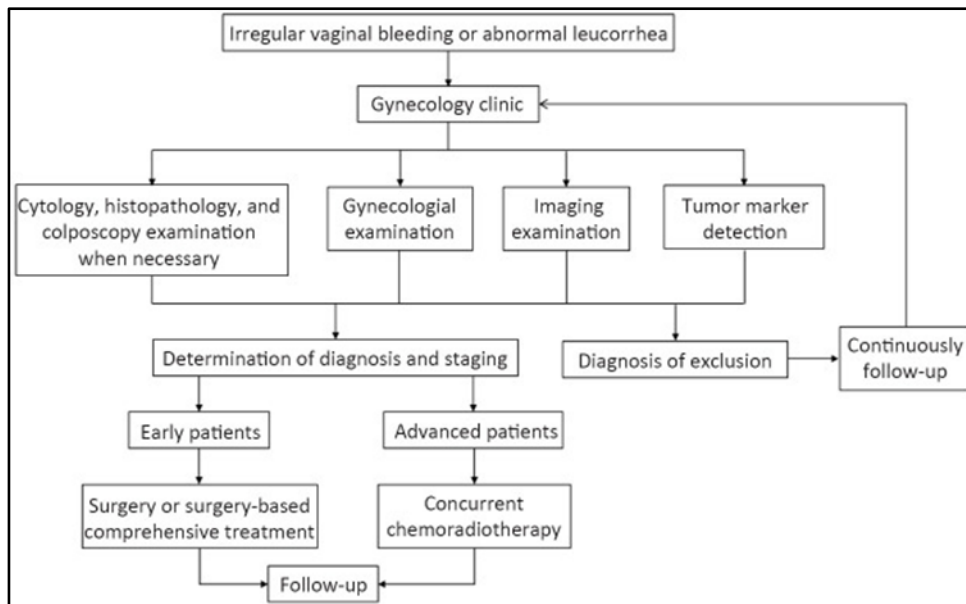
Patients with stage IA1 who do not meet the fertility requirements are advised to undergo extrafacial hysterectomy (Type I hysterectomy). If the patient wishes to maintain fertility, cervical conization may be performed. Patients with negative margins should be followed up regularly. The metastatic rate of stage IA1 lymph nodes is <1%, so no lymph node resection is required for stage IA1 patients. However, if the lymphovascular space is invaded, conization of the cervix (negative incision margin) or a modified radical hysterectomy with pelvic lymphadenectomy should be performed.<sup>29</sup>

Treatment options for stages IB3 and IIA2 include: 1) Concurrent chemoradiation; 2) radical hysterectomy, pelvic lymph node dissection, para-aortic lymph node sampling, and postoperative individual adjunctive therapy; 3) adjuvant chemotherapy and surgical treatment; 4) hysterectomy after primary chemoradiation. FIGO guidelines (2018) also recommend radical hysterectomy and lymphadenectomy after neoadjuvant chemotherapy as other options for the treatment of locally advanced cervical cancer. Currently, there is still controversy regarding the impact of neoadjuvant chemotherapy on the prognosis of cervical cancer patients, so it is generally recommended to carry out clinical trials or in areas without radiotherapy conditions, especially for types of pathology that are relatively insensitive to radiotherapy, such as adenocarcinoma).<sup>29</sup>

The overall 5-year survival rate of stage IB patients is approximately 80%-90%. Among them, the 5-year survival rate of patients with cervical tumors >4 cm in diameter and high risk factors such as lymph node metastases, parametrial invasion and/or positive incision margins is between 40% and 70%. For selected patients newly diagnosed with early-stage cervical cancer, chemoradiation may be more beneficial for patients with high risk factors. Currently, the standard treatment for locally advanced cancer patients is concomitant chemoradiation.

The efficacy of chemotherapy for the treatment of cervical cancer is increasing the attention. It is mainly used with radiotherapy and radiosensitizer using chemotherapy (single agent or combination therapy). It is also used as a preoperative neoadjuvant as well as for palliative treatment of patients with distant metastases and recurrences. Effective regimens for the treatment of cervical cancer include cisplatin, paclitaxel, 5-fluorouracil, ifosfamide, gemcitabine, topotecan, and others.<sup>29</sup>

Pembrolizumab has been added as the preferred regimen to second-line option. Several immuncheckpoint inhibitors are currently used in clinical trials in combination with targeted agents, chemotherapy or radiotherapy, but more clinical data are needed to support immuncheckpoint inhibitor combinations. Patients with recurrent and persistent cervical cancer are encouraged to participate in clinical trials.



**Figure 4.** Diagnostic and treatment procedures for cervical cancer<sup>29</sup>

## CONCLUSION

Radical hysterectomy combined with adjuvant chemotherapy has been shown to reduce the chance of recurrence or progressiveness of the disease, in which this patient did not experience a recurrence after two years of treatment.

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