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CASE REPORT

One-Year Follow-Up of Stage IB1 Cervical Cancer After Radical Hysterectomy

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ABSTRACT

Background: Cervical cancer is the third most common cancer among women worldwide and is entirely caused by infection with the Human Papillomavirus (HPV). HPV types 16 and 18 are the types most frequently found in invasive cervical cancer. Population-based HPV prevalence studies show that the highest incidence occurs in women under 25 years of age, and mortality from cervical cancer peaks among middle-aged women between 40 and 50 years old. **Objective**: The objective of this case report is to describe the one-year follow-up outcomes of stage IB1 cervical cancer after radical hysterectomy. **Cases**: We report two cases involving 46- and 47-year-old women diagnosed with stage IB1 cervical cancer. Radical hysterectomy was performed in both patients, and adjuvant radiotherapy was administered to one patient based on the Sedlis criteria. Both patients returned for follow-up one year after surgery, and no recurrence or persistence of cervical cancer was found. **Conclusions**: Cervical cancer is a disease whose prognosis is highly influenced by its stage of development. Routine screening is the main modality to improve the prognosis of cervical cancer. In early stages, surgical management is effective as the primary treatment for cervical cancer, particularly to avoid the long-term side effects frequently associated with radiation therapy. Regular postoperative evaluation is essential to detect recurrence as early as possible and give patients the best chance of optimal disease management.

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Highlights

1. Radical hysterectomy showed favorable one-year outcomes in stage IB1 cervical cancer patients, with no recurrence observed during follow-up;
2. Sedlis criteria assisted postoperative management decisions, guiding adjuvant radiotherapy use to reduce recurrence risk in intermediate-risk patients.

BACKGROUND

Cervical cancer is the third most common cancer among women worldwide and is entirely caused by infection with Human Papilloma Virus (HPV). More than 130 types of HPV have been identified, with 20 types associated with malignancy. HPV types 16 and 18 are most frequently found in invasive cervical cancer. HPV exposure rates are primarily known in women because screening is not commonly performed in the male population. Population-based HPV prevalence studies show that the highest incidence occurs in women under 25 years of age, and mortality from cervical cancer peaks in women between 40 and 50 years of age (Fowler et al., 2025; Saia et al., 2018; Zhang et al., 2020).

The 2020 NCCN Guidelines for cervical cancer divide management based on disease stage. In stage I cervical cancer, treatment options are available with consideration of the patient's fertility status. Radical hysterectomy and pelvic lymph node dissection are primary therapy options for patients with early-stage cervical cancer. Based on histopathological analysis results, additional therapy in the form of pelvic External Beam Radiotherapy (EBRT) may be considered for intermediate-risk patients according to the Sedlis criteria (Abu-Rustum et al., 2020; Bogani et al., 2022).

The Sedlis criteria for postoperative external pelvic radiation are applied only to patients with negative lymph nodes, negative margins, and negative parametrium. The assessed factors include the presence or absence of lymphovascular space invasion (LVSI), depth of stromal invasion, and tumor size (Sedlis et al., 1999). The Sedlis criteria are used to evaluate recurrence risk factors requiring postoperative radiotherapy in early-stage cervical cancer. Fulfillment of the Sedlis criteria represents an intermediate-risk factor used to guide postoperative adjuvant therapy. (Chu et al., 2021).

Table 1. Sedlis Criteria *(Sedlis et al., 1999)*

LVSI	Stromal Invasion	Tumor size (cm)
+	Inner 1/3	any size
+	Middle 1/3	≥2
+	Superficial 1/3	≥5
-	Middle or inner 1/3	≥4

The following case report demonstrates the one-year follow-up outcomes of two cervical cancer patients after radical hysterectomy with negative lymph nodes, margins, and parametrium. Pelvic EBRT was not performed in one patient because she did not meet the Sedlis criteria. This report aims to provide practical insight for clinicians, particularly regarding postoperative management after radical hysterectomy.

OBJECTIVE

The objective of this case report is to describe the one-year follow-up outcomes of stage IB1 cervical cancer after radical hysterectomy, with additional adjuvant radiotherapy in the patient who fulfilled the Sedlis criteria and observation-only management in the patient who did not fulfill the Sedlis criteria.

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Through this integrative approach—combining clinical case illustration, cultural analysis, and intervention development—this article contributes to the emerging field of cultural psychiatry in Indonesia and offers practical guidance for mental health professionals working in this complex cultural landscape. By demonstrating how Western evidence-based practices can be thoughtfully adapted rather than simply transplanted, this work supports the development of culturally-competent mental healthcare that respects local values while effectively addressing the debilitating impact of stigma.

CASES

This report presents two cases: Mrs. A, aged 46 years, and Mrs. H, aged 47 years. Both women presented to the gynecologic oncology clinic at Abdul Wahab Sjahranie Hospital with similar complaints of vaginal bleeding occurring outside the normal menstrual cycle. Both patients were referred from primary healthcare facilities with positive VIA test findings and positive HPV Pap smear results. After physical examination, two different presentations were found.

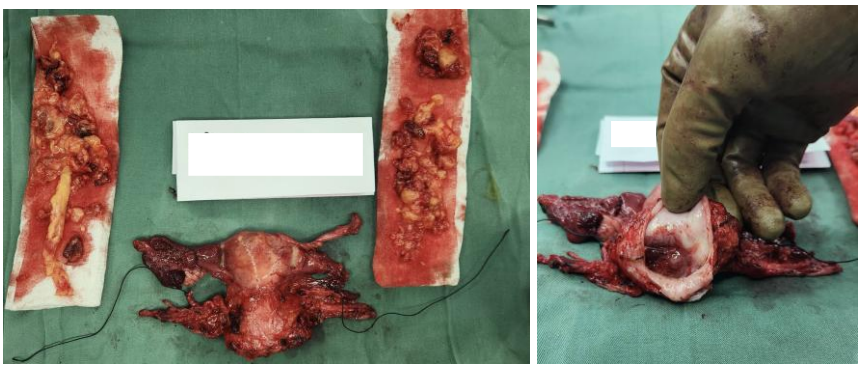
In Mrs. A, the cervix was firm and enlarged upon palpation, with bleeding occurring upon release. Speculum examination showed a red, enlarged cervix with a barrel-shaped appearance and blood spots. In Mrs. H, the cervix was firm with foul-smelling sticky blood upon release. Speculum examination showed a red cervix with a small protruding mass from the 2 o'clock to 4 o'clock direction.

Biopsy samples were obtained from both patients, and diagnoses of cervical cancer were established: adenocarcinoma in Mrs. A and squamous cell carcinoma in Mrs. H. CT scan examination revealed no spread of the mass to the uterus, vagina, or other organs.

Considering that both patients were premenopausal and had completed childbearing, non–fertility-sparing management in the form of radical hysterectomy was recommended and agreed upon. Postoperative histopathological findings:

Mrs. A

Grade 1 cervical adenocarcinoma infiltrating the cervical stroma, primary tumor stage IB1 measuring 4.0 × 2.5 × 2.0 cm, with lymph nodes not assessable. No parametrial involvement, no vaginal involvement, and no lymphovascular invasion were found. Endocervical and ectocervical margins, as well as parametrium, were free of tumor.

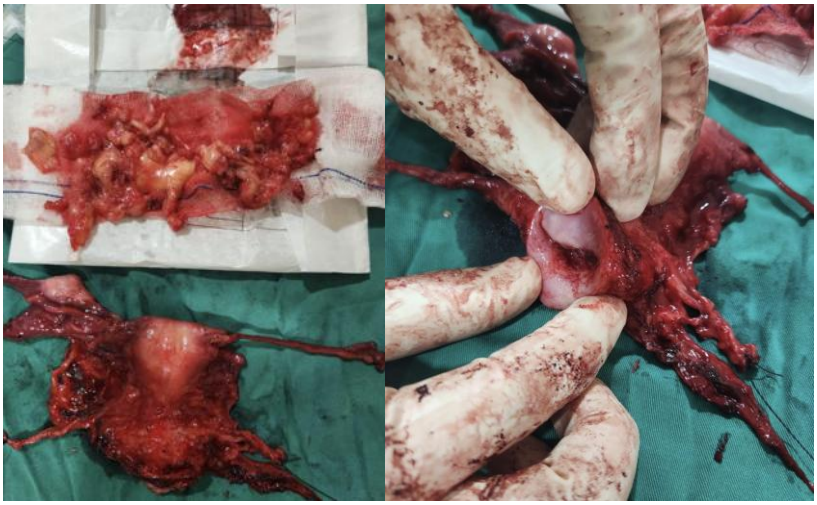


Figures 1. Radical hysterectomy on Mrs. A

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Mrs. H

Malignant tumor growth measuring 2.5 cm in the cervical tissue with proliferation of anaplastic squamous epithelial cells, oval nuclei, mild pleomorphism, hyperchromatic features, prominent nucleoli, forming invasive nests growing into the stroma. No parametrial involvement or lymphovascular invasion was found, and no tumor was present at the vaginal margin.



Figures 2. Radical hysterectomy on Mrs. H

After surgery, Mrs. H did not receive additional radiotherapy because she did not meet the Sedlis criteria. Mrs. A received adjuvant radiotherapy because of tumor size (4 cm).

Both patients returned for follow-up at the outpatient clinic one year after surgery, and no signs of persistence or recurrence of the previous tumor were found.

DISCUSSION

Cervical cancer continues to be a global health problem among women, although prognosis is favorable in early stages. The five-year relative survival rate for cervical cancer is approximately 92%. This rate decreases to 60% when cervical cancer is diagnosed after local spread or spread to regional lymph nodes. (Fowler et al., 2025). Early diagnosis often becomes a challenge due to asymptomatic presentation in early stages in most patients. Tumors originating from the endocervical canal or beneath the ectocervical epithelium may be difficult to visualize during speculum examination. Pap smear examinations may also yield false-negative results. (Berek & Hacker, 2015; Fowler et al., 2025).

The most common chief complaint leading patients to seek medical evaluation is vaginal bleeding outside the normal menstrual cycle. In advanced stages, patients may experience pain, urinary disturbances, and bowel dysfunction. (Berek & Hacker, 2015). Radical hysterectomy with pelvic lymph node dissection, with or without para-aortic lymphadenectomy or radiotherapy, is the standard treatment for early-stage cervical malignancy. (Abu-Rustum et al., 2020; Chen et al., 2021). Tumor staging was determined according to the modified FIGO 2009 classification as follows:

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Table 2. Cervical Cancer Stage Classification FIGO 2009 *(Berek & Hacker, 2015)*.

Stage I	Carcinoma strictly confined to the cervix (extension to the uterine corpus should be disregarded)
IA	Invasive carcinoma diagnosed only by microscopy. Maximum depth of stromal invasion < 5 mm.
IA_1	Stromal invasion < 3 mm in depth
IA_2	Stromal invasion ≥ 3 mm but < 5 mm in depth.
IB	Invasive carcinoma with stromal invasion ≥ 5 mm, limited to the cervix.
IB_1	Tumor < 2 cm
IB_2	Tumor ≥ 2 cm and < 4 cm
IB3	Tumor ≥ 4 cm
Stadium II	Carcinoma extends beyond the uterus but not to the pelvic wall or lower third of the vagina.
IIA	Without parametrial invasion
IIA_1	Tumor < 4 cm
IIA_2	Tumor ≥ 4 cm
IIB	With parametrial invasion
Stage III	Carcinoma involves the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or non-functioning kidney and/or involves lymph nodes.
IIIA	Involves lower third of the vagina
IIIB	Extends to pelvic wall and/or causes hydronephrosis
IIIC	Pelvic and/or para-aortic lymph node involvement
IIIC1	Pelvic lymph node metastasis
IIIC2	Para-aortic lymph node metastasis
Stage IV	Distant Metastasis
IVA	Spread to adjacent pelvic organs (bladder or rectal mucosa)
IVB	Distant metastasis

Approximately 35% of patients with invasive cervical cancer will experience recurrence or persistence within three years after therapy. Recurrence after surgery is defined as the presence of a tumor mass after all visible tumor has been removed and margins are free of disease. Persistence is defined as gross tumor remaining at the surgical site or local recurrence within one year after initial surgery.(Chen et al., 2021; Saia et al., 2018).

Recurrence may occur locally (vagina, cervix, uterus, parametrium), regionally (bladder, ureter, urethra, rectum, anal sphincter, lymph nodes), or distantly (organ metastasis). After hysterectomy, local recurrence is more frequently observed, particularly in the upper vagina or the area previously occupied by the cervix (Berek & Hacker, 2015; Miccò et al., 2022; Saia et al., 2018).

Based on a study involving 182 patients with stage IB1 cervical carcinoma, the recurrence rate among patients who underwent radical hysterectomy without postoperative radiotherapy was approximately 10% (Haesen et al., 2021). Other studies report no significant difference in recurrence rate or disease-free survival between patients treated with surgery alone and those receiving additional radiotherapy in IB1–IIA stages. (Cao et al., 2021; Saia et al., 2018). In this report, both tumors were classified as stage IB1 with sizes of 2.5 cm and 4 cm, confined to the cervix but clinically visible and palpable.

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Low-risk cervical cancer patients tend to have better recurrence prognosis. The survival rate without local recurrence in low-risk patients is approximately 93% without additional radiotherapy. Deep stromal invasion has been associated with recurrence in low-risk patients. Other studies have shown recurrence in low-risk cervical cancer cases particularly when tumor size exceeds 2 cm (Caruso et al., 2025).

Major prognostic factors after radical hysterectomy include lymph node status, primary tumor size, depth of stromal invasion, LVSI, parametrial extension, cell type, and vaginal margin status (Berek & Hacker, 2015). In the two cases presented in this report, there was no lymph node involvement. Stromal invasion was present without lymphovascular space invasion (LVSI), and the tumor sizes were 2.5 cm and 4 cm, respectively. There was no parametrial involvement or vaginal margin involvement in either case. The histological types differed between the two patients, consisting of adenocarcinoma and squamous cell carcinoma (SCC).

Due to the tumor size of 4 cm, Mrs. A fulfilled the Sedlis criteria and therefore received adjuvant radiotherapy following radical hysterectomy. No signs of local recurrence or distant metastasis were observed in either patient at one-year postoperative follow-up.
Current literature does not demonstrate a significant difference in the management of cervical carcinoma based on histological type, although some sources suggest that adenocarcinoma may be slightly more resistant to radiotherapy compared to SCC. (Berek & Hacker, 2015).

Patients are recommended to undergo routine follow-up after treatment to assess recurrence. Follow-up should include complete history taking, general physical examination, and pelvic examination with cytology. Follow-up visits are recommended every 3–6 months during the first two years, every 6–12 months for the next three years, and annually thereafter. Symptoms requiring attention during follow-up include weight loss, lower back pain (especially radiating pain), abnormal vaginal bleeding, and abnormal cytology results. (Abu-Rustum et al., 2020; Berek & Hacker, 2015; Elit et al., 2010).

Survival rates for recurrent or persistent carcinoma within one year range from 10–15%. In cases of recurrence after primary surgery, radiotherapy is often the first treatment option. However, radiotherapy may lead to Pelvic Radiation Disease (PRD), including radiation enteritis, proctitis, and cystitis, which may significantly reduce quality of life. Because of these challenges, palliative management may become the only option in recurrent cases (Saia et al., 2018).

Limitations

Due to the limited number of cases presented, the results of this report cannot be generalized to the broader population without considering individual risk factors and disease presentation. Recurrence status beyond one year has not yet been assessed, so conclusions may change with longer follow-up. Nevertheless, this report may serve as a reference for clinicians and future research regarding the role of radical hysterectomy in low-risk cervical cancer management.

CONCLUSION

Cervical cancer prognosis is highly influenced by stage at diagnosis. Routine screening is the primary modality to improve outcomes. In early stages, surgical management is effective as the main treatment strategy, particularly to avoid long-term radiation side effects. Regular postoperative evaluation is essential to detect recurrence as early as possible and provide patients with the best opportunity for optimal disease management.

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Conflict of Interest

The authors have no conflict of interest.

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Patient Consent for Publication

Written informed consent was obtained from the patient for publication of this case report.

Author Contribution

The authors were involved in all stages of this study, including study preparation, data collection and analysis, manuscript drafting, and approval of the final version for publication.

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