# A RARE CASE OF CERVICAL LEIOMYOSARCOMA: CASE REPORT AND COMPREHENSIVE MANAGEMENT AT PHC SURABAYA HOSPITAL

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## ABSTRACT

**Introduction:** Cervical cancer is a malignant neoplasm that grows from cells originating from the cervix in the uterus. Leiomyosarcoma is a type of neck cancer that is relatively rare, data from the USA shows an incidence rate of only 0.35-0.64 per 100,000 women.
**Objective:** This paper reports on the management of leiomyosarcoma cases at PHC Surabaya Hospital.
**Case Report:** A 45-year-old female patient complained of continuous menstruation. An ultrasound was performed, and a biopsy was planned due to the mass found during the ultrasound. The biopsy showed cervical malignancy. A total hysterectomy, and bilateral oophorectomy, were performed and a PA examination was carried out on the uterine samples resulting from the operation the results, were leiomyosarcoma, high-grade, cervix, invasion in the stroma of the parametrium, vaginal cuff and both sides of the lymph nodes were free of tumor (pt1b3 n0mx)
**Conclusion:** The patient was treated for 3 days at PHC Hospital after surgery and went home without complications from the surgical wound. The patient returned to control after 6 months with signs of tumor recurrence and negative metastases.

**Keyword:** Cervical Cancer, Leiomyosarcoma, Hysterectomy

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## INTRODUCTION

Cervical cancer is a malignant neoplasm that arises from cells originating in the cervix of the uterus. It is a disease characterized by a relatively high level of malignancy and stands as the leading cause of cancer-related deaths among women in developing countries. [(1)] Various factors can contribute to the onset and progression of cervical cancer, among which is the Human Papilloma Virus (HPV). HPV comprises a group of over 150 viruses capable of infecting cells on the skin's surface, as well as cells in the genitalia, anus, mouth, and throat. Certain types of HPV can lead to the formation of warts, including genital warts, while others are closely associated with the development of cancer, particularly cervical cancer. Indeed, medical professionals posit that exposure to HPV typically precedes the development of cervical cancer in women. [(2)] Leiomyosarcoma, a relatively rare form of neck cancer, exhibits an incidence rate of only 0.35-0.64 cases per 100,000 women, as per data from the USA. This case report details the management of a leiomyosarcoma case at PHC Surabaya Hospital.

## CASE REPORT

In August 2020, the patient reported experiencing continuous menstruation, with a significant amount of menstrual blood requiring the changing of pads 4-5 times a day, accompanied by slight pain. Subsequently, spotting occurred for 7 days. The patient denied experiencing frequent urination or disturbances in defecation. Seeking medical attention, the patient visited the obstetrics and gynecology clinic in Sumenep. A pregnancy test yielded negative results. The patient has been married twice, initially at 14 years old and remarried at 19 years old. They have 3 children, the first born when the patient was 16 years old, the second at 19 years old, and the third at 25 years old. The first two children were delivered vaginally, while the third was born via cesarean section due to positional concerns. Additionally, the patient has a history of using hormonal birth control injections for 2 years.

Further examinations were necessary to aid in diagnosis. Upon physical examination, the patient was found to be in good condition, with normal vital signs and BMI. No signs of anemia, icterus, cyanosis, or dyspnea were observed. Heart and lung conditions were within normal limits. A palpable mass was detected upon abdominal examination, while the extremities showed no abnormalities. A complete blood examination revealed no abnormalities. A radiological ultrasound examination

identified a mass in the cervical area, as well as a right ovarian cyst measuring 4.44 x 3.30 cm. Subsequent abdominal CT scan results indicated a cyst in the left lobe of the liver, cervical cancer measuring 6.5 x 3.5 x 6.8 (1BN0Mx), and lumbar spondylosis, with EKG and chest x-ray results being within normal limits.

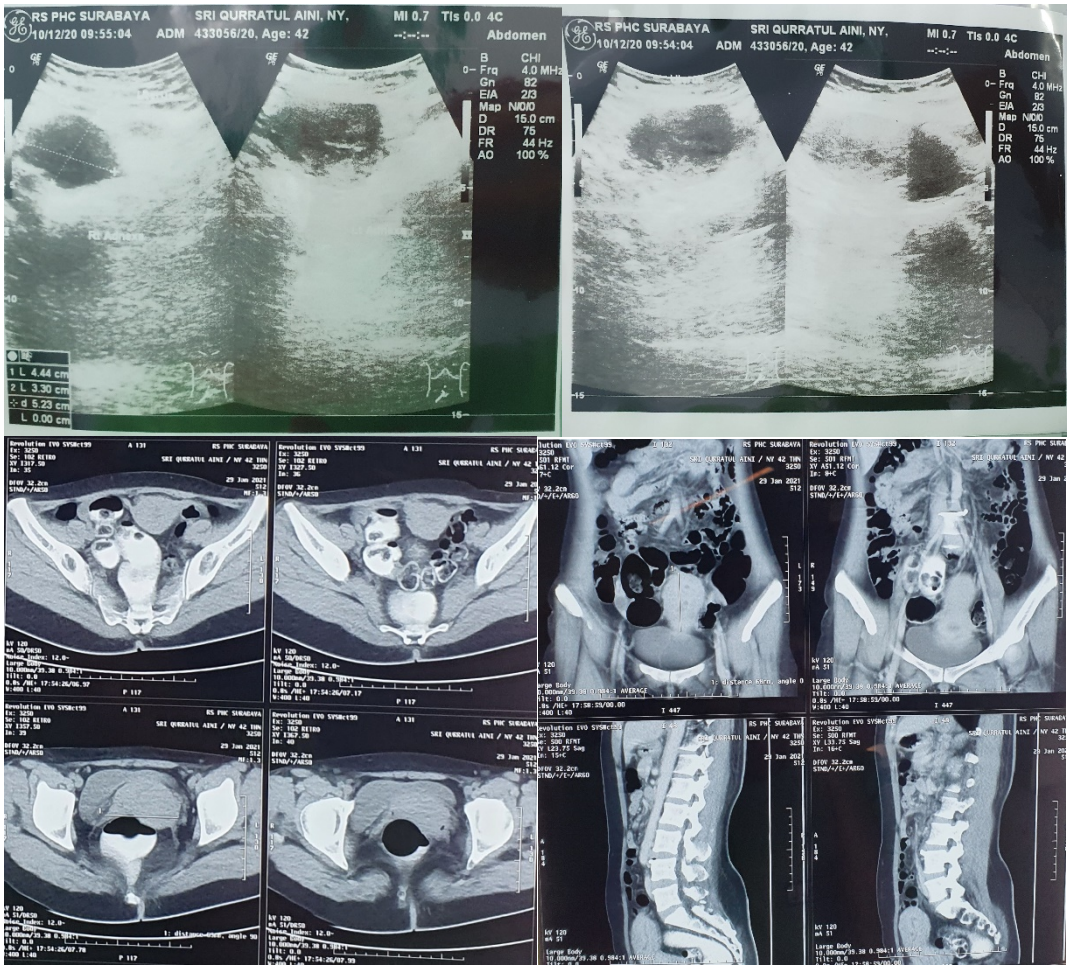


**Figure 1. CT-Scan and Ultrasound Examination**

Following the biopsy, the patient reported heavy bleeding necessitating a transfusion of 2 units of packed red blood cells (PRC). Once stabilized, the doctor discharged the patient, instructing her to await the pathology (PA) results for approximately 1 week. A week later, during a follow-up appointment, the patient was referred to PHC Hospital by a physician in Sumenep after the PA results confirmed cervical malignancy, prompting the need for a hysterectomy. Scheduled for surgery on January 30, 2021, the procedure was canceled due to a positive COVID-19 test result. However, on February 5, 2021, the patient returned to PHC Hospital with a negative SARS-CoV-2 PCR swab.

The patient, who has been married twice, first married at the age of 14 and experienced her first pregnancy at 16 years old, underwent a total hysterectomy and bilateral oophorectomy. Subsequently, a

PA examination was conducted on the uterine samples retrieved during the surgery, revealing leiomyosarcoma of high grade in the cervix with invasion into the parametrial stroma. Notably, the vaginal cuff and both sides of the lymph nodes were free of tumors (pt1b3 n0mx). Following the surgery, the patient remained under observation at PHC Hospital for 3 days and was discharged home without complications related to the surgical wound. Six months later, the patient returned for a follow-up appointment, showing signs of tumor recurrence with negative metastases.

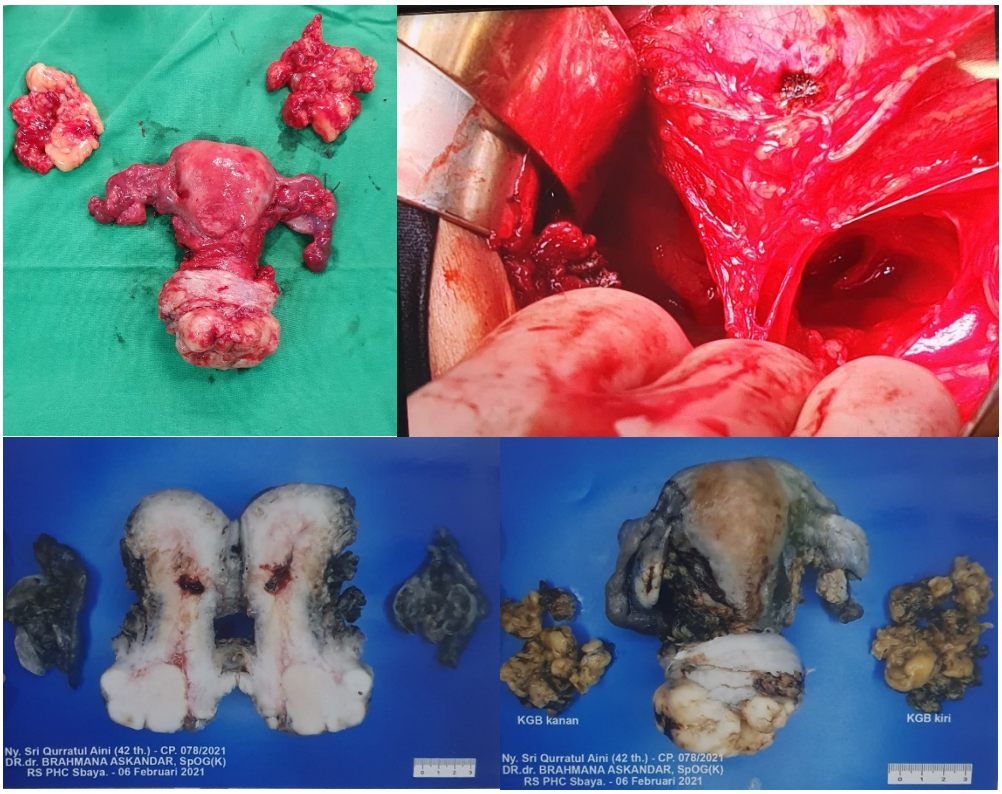


**Figure 2. Post-operation Findings and Sent Samples for Histo PA Examination**

## DISCUSSION

Cervical cancer is a malignant neoplasm that grows from cells originating from the cervix in the uterus. It is a disease that has a fairly high level of malignancy and is the main cause of death due to cancer in women in developing countries. Cervical cancer has several risk factors, including sexual intercourse before the age of 18 years. In this patient, this risk factor was found because the patient married for the first time at the age of 14 years. Research shows that sex under the age of 18 years increases the risk of cervical cancer 5x. Another risk factor is obstetric

history, pregnancy at a young age can cause an increased risk of developing cervical cancer which was also found in this patient because the age of the first pregnancy was 16 years. [3,4]

The patient underwent clinical staging using a CT-scan examination, revealing the presence of cervical cancer with dimensions of 6.5 x 3.5 x 6.8 without the discovery of enlarged lymph nodes (N0) and no signs of metastasis or lymph node involvement para aorta clear (M0), leading to the conclusion of stage 1B3. According to several studies, radical hysterectomy with pelvic lymphadenectomy has a level of evidence I or recommendation A. Adjuvant radiotherapy or chemoradiation is given if there are risk factors for lymph node metastasis, parametrium metastasis, incision margins not free of tumor, deep stromal invasion, LVSI. If only lymph node involvement is present, adjuvant radiation therapy consists solely of EBRT (External Beam Radiation Therapy). [12,13,14,15]

The success rate of therapy for precancerous lesions can approach 100%. However, in stage one cervical cancer, the 5-year survival rate reaches 93%, stage two up to 65%, stage three drops to 35%, and if there is an invasion into the bladder, rectum, or distant metastases, namely stage four, the survival rate is only 16% [16,17,18,19]. In this case, the patient is still at stage 1 and has a good prognosis with invasive hysterectomy therapy.

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## CONCLUSION

The patient was treated for 3 days at PHC Hospital after surgery and discharged home without complications from the surgical wound. After 6 months, the patient returned for a follow-up appointment, showing signs of tumor recurrence but with negative metastases.

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