

Case Report

Cervical Stump Carcinoma Following Subtotal Hysterectomy: A Tragedy that Deserves a Reminder

Maradona Isikhuemen¹, Vincent Imobekhai², Ikponmwosa Obahiagbon², Michael Aziken¹

¹Department of Obstetrics and Gynaecology, University of Benin Teaching Hospital, Edo State, Nigeria.

²Department of Morbid Anatomy, University of Benin Teaching Hospital, Edo State, Nigeria

Abstract

Cervical stump carcinoma is a rare but possible outcome of subtotal hysterectomy. Despite the postulated advantages of subtotal hysterectomy, the risk far outweighs its benefit. We report a case of cervical adenocarcinoma following subtotal hysterectomy for uterine fibroid with a view to highlighting this rare but possible outcome when the cervix is not removed at hysterectomy. A 58-year-old multipara who had subtotal hysterectomy for uterine fibroid with menorrhagia. Pap smear was not done for her prior to surgery. She subsequently presented with abnormal vaginal bleeding of 2 years duration. Histopathological analysis of cervical biopsy specimen revealed adenocarcinoma. She was counseled for chemoradiation. In conclusion, total hysterectomy should be the standard of care when hysterectomy is indicated so as to prevent the occurrence of cervical stump carcinoma.

Correspondence:

Maradona Ehikioya Isikhuemen,
Department of Obstetrics and
Gynaecology,
University of Benin Teaching
Hospital,
Edo State, Nigeria.

maradona4real2002@yahoo.com

Keywords: cervix, adenocarcinoma, hysterectomy

INTRODUCTION

Cervical cancer has remained a challenge particularly in low-and-middle income countries. Its risk factors are related to acquisition of the human papilloma virus with genital contact as the major mode of spread. Most women with the disease in Africa tend to present at advanced stages where treatment is mainly palliative to improve quality of life. Cervical cancer may occur following supracervical hysterectomy. This mode of presentation accounts for 3 to 9% of all cervical cancer cases, and among patients who had subtotal hysterectomy 1 to 3% may develop cervical stump cancer.¹⁻³ Hysterectomy is expected to eliminate the risk of cervical cancer but this is not so if the cervix is not removed. Despite the postulated advantages of supracervical hysterectomy, the risk of malignant transformation should always be considered which often outweighs the benefit. Fortunately, supracervical hysterectomy is now rarely performed and it is not routinely recommended. We report a case of cervical stump adenocarcinoma following subtotal hysterectomy

for uterine fibroid with a view to highlighting this possible but rare tragedy when the cervix is not removed at hysterectomy.

CASE REPORT

A 58-year-old para 2 lady with 2 living children presented with vaginal bleeding of 2 years duration. She had subtotal hysterectomy for uterine fibroid with menorrhagia in a peripheral facility 8 years prior to presentation. There was neither dizziness nor fainting spells. She had one lifetime sexual partner and had not done any pap smear in the past. There was history of weight loss. She took alcohol occasionally but did not use tobacco in any form. She had no previous history of gynaecological cancer, neither did she report any family history of cancer. The comorbid conditions noted were hypertension and diabetes.

On examination her general condition was satisfactory. Other systems were essentially normal. There was no abdominal mass. Vaginal examination showed a mass infiltrating the endocervix with contact bleeding. Her packed cell volume was 43%. An office

cervical biopsy was performed following counseling. Sections of the cervical biopsy specimen showed a malignant neoplastic lesion composed of atypical epithelial cells disposed in well-formed glands and villoglandular structures invading desmoplastic stroma (Figure 1). The cells showed mild to moderate pleomorphism, had round to oval nuclei and scant to moderate cytoplasm. These features were in keeping with well differentiated adenocarcinoma of the cervix. Abdominopelvic magnetic resonance imaging showed cervical mass measuring 47 X 42 X 34mm with parametrial invasion and regional lymph node involvement. Care was subsequently transferred to the radiotherapy department for chemoradiation.

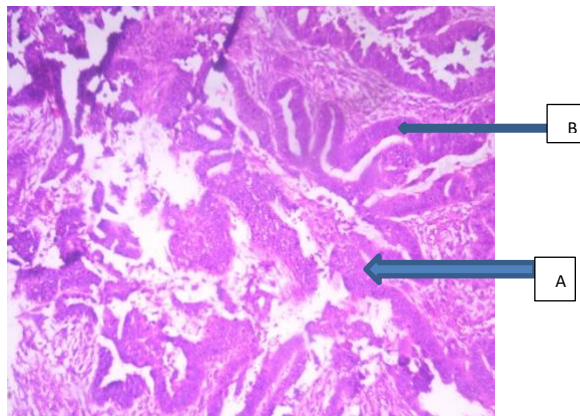


Figure 1: Micrograph showing atypical epithelial cells lining the endocervix (thick block arrow A) and invading stroma forming glands (thin block arrow B). [H and E x100]

DISCUSSION

Cervical stump adenocarcinoma is an uncommon but devastating outcome following supracervical hysterectomy. Hysterectomy is commonly performed for benign gynaecological condition when indicated and this may sometimes be subtotal. Though subtotal hysterectomy has its proposed advantages, the possibility of cervical stump carcinoma makes it an unattractive option. Total hysterectomy should therefore be the procedure of choice whenever this is feasible. Supracervical hysterectomy may help in maintaining pelvic support, sexual and urinary function.^{4,5} It is also associated with less operating time, reduced blood loss and complications though these may also be achieved with total hysterectomy.^{4,5} The occurrence of cervical cancer after subtotal hysterectomy is an unpleasant experience for both patient and surgeon and this should therefore be prevented. This complication may be a long-term effect following preservation of the cervix during supracervical hysterectomy. An interval of 2

years has been suggested as the time required between subtotal hysterectomy and development of cervical stump cancer.⁶ The index patient had cervical stump carcinoma 8 years following hysterectomy. The cancers that occur earlier were probably present at the time of hysterectomy. Therefore, the need for appropriate preoperative evaluation and expert histopathological analysis of excised specimens cannot be overemphasized.

The treatment of cervical stump cancer could be radical trachelectomy or chemoradiation.⁷⁻⁹ This would depend on the extent of disease and the facilities available for treatment. Amputation of the cervical stump may however be challenging following a previous hysterectomy. This is due to distorted anatomy and adhesion formation from the previous surgery. Chemoradiation is the standard of care for advanced stages. There was lymph node involvement in the index case hence chemoradiation was adjudged to be the most favourable option of care.

In some cases of extensive pelvic adhesions, uncontrollable postpartum haemorrhage and ruptured uterus, subtotal hysterectomy may be a lifesaving option.¹⁰ Whenever subtotal hysterectomy is performed, patients should be informed of the risk of cervical cancer and its prevention. They should therefore perform routine screening with appropriate treatment when screening tests become abnormal. Other proposed ways of preventing cervical stump carcinoma following subtotal hysterectomy are ablation of endocervical columnar epithelium and transformation zone intraoperatively.¹⁰

CONCLUSION

Total hysterectomy should be the standard of care when hysterectomy is indicated. Cervical stump carcinoma is a rare but possible complication of supracervical hysterectomy. Following subtotal hysterectomy routine cervical screening should be performed for early detection of premalignant disease and prevention of cervical stump cancer.

REFERENCES

1. Hellstrom A, Hellman K, Pettersson BF, Andersson S. Carcinoma of the cervical stump: fifty years of experience. *Oncology Reports*, 2011; 25: 1651 – 1654.
2. Wang J, Zeng X, Min L, Li L. Cervical stump cancer after subtotal hysterectomy: A retrospective research of 127 cases from China and literature review. *Clin Exp Obstet Gynecol*, 2024; 51(1): 11
3. Fram KM, Saleh S, Fram F, Fram R, Muhidat N, Abdaljaleel M et al. Subtotal hysterectomy reviewed: a stable aperture for stump cervical malignancy. A referral hospital experience. *Menopause Rev*, 2022; 21(4): 266 – 271.

4. Rechberger T, Perzylo K, Miotla P, Nowak-Markwitz E, Zaborowski M, Lemanska A et al. Carcinoma of the cervical stump – multicenter study. *Ginekologia Polska*, 2014; 85(6): 435 – 440.
5. Wahba HA, El-Hadaad HA, Abozeed WN, Elnahas W, Roshdy S, Gamal A. Survival and prognostic factors in patients with carcinoma of cervical stump. *J Cancer Therapy*, 6(11): 1008 – 1012.
6. Shen Z, Zhou Y, Cheng Y, Li M, Wu D. Retrospective analysis of surgery for cervical stump carcinoma at early stage. *Molecular and Clinical Oncology*, 2018; 8: 352 – 355.
7. Andrikos D, Andrikos A, Naem A, Ebertz O, Devassy R, Wilde RL. Advanced cervical stump cancer after laparoscopic subtotal hysterectomy: a case report of imaging, laparoscopic staging and treatment approach. *BMC Womens Health*, 2023; 23: 281
8. Kovalic JJ, Grigsby PW, Perez CA, Lockett MA. Cervical stump carcinoma. *Int J Radiat Oncol Biol Phys*, 1991; 20(5): 933 – 938.
9. Okada K, Oike T, Ando K, Kubo N, Ohno T. Cervical stump cancer treated with radiotherapy using computed tomography-guided brachytherapy. *Cureus*, 2021; 13(3): e13789
10. Emam M, Elsayed AS. Obligatory subtotal hysterectomy: novel strategy for prevention of cervical stump carcinoma. *International Journal Gynaecologic Cancer*, 2023; 33: A343