

CASE REPORT

SYNCHRONOUS PRIMARY CERVICAL AND COLORECTAL CANCERS IN A 25-YEAR-OLD WOMAN

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ABSTRACT

Introduction: Synchronous cancer refers to two or more malignancies co-existing in a patient at the time of diagnosis or within 6 months of diagnosing the first. Cervical cancer is the commonest gynecological malignancy in Nigeria, while colorectal cancer the 4th commonest malignancy in Nigeria.

Case Presentation: We present a 25-year-old grand multi-para who presented the hospital with a 20-month history of recurrent bleeding per rectum and a 4-month history of persistent foul smelling watery vaginal discharge. Physical examination at presentation revealed a mildly pale young woman with multiple discrete inguinal lymphadenopathies, with a Karnofsky performance status (KPS) of 90. Abdominopelvic ultrasound scan showed a rectal mass measuring 12 x 11.4 cm that was clearly delineated from the uterus, cervix and urinary bladder. There was also a hypo echoic mass in the region of the cervix uteri. These findings were further confirmed with a pelvic MRI scan. She had a colonoscopy done with the findings of a near obstructing irregular luminal rectal mass about 3-4 cm in vertical extent and extending up to about 5 cm above the anal verge, while the other aspects of the colon were normal. Separate biopsies were taken for the rectal and cervical masses. The reports of histology were well differentiated mucinous adenocarcinoma and Squamous Cell Carcinoma Large Cell Non-keratinizing for the rectal and cervical masses respectively. **Conclusion:** Synchronous primary cervical and colorectal cancers are extremely rare. The risk factors for each of the malignancies may overlap with that of the other, thereby increasing the chances of synchronicity in an individual. More routine screening for cancer predisposing conditions like Li-Fraumeni syndrome is advocated in resource-constrained countries

Keywords: Synchronous malignancies, cervical cancer, colorectal cancer, young adult cancer

CASE REPORT

INTRODUCTION

Synchronous cancer refers to two or more malignancies co-existing in a patient at the time of diagnosis or within 6 months of diagnosing the first.¹ Cervical cancer is the second commonest gynecological malignancy in western world after endometrial cancer, but the commonest gynaecological malignancy in developing countries.² Over eighty percent of the new cases of cervical cancer are diagnosed in developing nations, where it is the second most common cancer in females (after breast cancer) and the commonest gynecological cancer.^{2,3} Studies in various parts of Nigeria showed cervical cancer to be the commonest gynecological malignancy.⁴⁻⁶ Cervical cancer rarely occurs in patients below 30 years of age, except in HIV seropositive patients.^{7,8}

Worldwide, colorectal cancer is the third most common cancer and the second most common cause of cancer death, causing about 903,859 deaths worldwide.^{9,10} Although the global incidence has not changed significantly over the past 30 years, the mortality rate especially in females has reduced.¹¹ Colorectal cancer is the third commonest cause of cancer related death in the United States, where an estimated 49,190 mortalities occurred in 2018 alone.^{12,13}

The incidence of colorectal cancer is however lower in Nigeria and parts of Africa.¹⁴ Over 90% of colorectal cancer cases are said to occur in people aged 50 years and above, however the incidence rate is about the same in both sexes.¹⁵

A case of synchronous primary cervical and colorectal cancers in a young female is reported.

CASE REPORT

SU, a 25-year-old Para 10⁺¹ housewife was initially seen at the surgical out-patient clinic of Ahmadu Bello University Zaria, where she presented with a 20-month history of recurrent bleeding per rectum and a 4-month history of persistent foul smelling watery vaginal discharge. There was associated change in bowel habit (increased frequency, with passage of small volume faeces) and significant weight loss. She had no vomiting, abdominal distention, dysuria, passage of faeces per vaginum, cough, jaundice or any other symptom. She consumed red meat routinely in her diet but never smoked nor consumed alcoholic beverages. No known contact with carcinogenic chemicals or family history of cancer. She made her coital debut at 12 years, with age at first childbirth being 13 years. She is the second of 2 wives and is in her first order of marriage. Neither a known diabetic nor hypertensive and her retroviral status is negative. No history of anoreceptive sexual intercourse.

Physical examination at presentation revealed a mildly pale young woman with multiple discrete inguinal lymphadenopathies, with a Karnofsky performance status (KPS) of 90. There were no masses palpable per abdomen, but a digital rectal examination showed a circumferential mass on the posterior rectal wall that was located about 4cm from the anal verge which bled on contact. On vaginal examination, there was a nodular exophytic mass that measured 2.5 x 2.5cm located on the anterior lip of the cervix and involving the upper ²/₃ of the vagina, with free parametria bilaterally.

MANAGEMENT AND OUTCOME

Abdominopelvic ultrasound scan showed a rectal mass measuring 12 x 11.4 cm that was

clearly delineated from the uterus, cervix and urinary bladder. There was also a hypo echoic mass in the region of the cervix uteri. These findings were further confirmed with a pelvic MRI scan. The chest radiograph and other staging investigations revealed normal studies. Hematological profile, renal and liver function tests were optimal, and intravenous urography did not reveal any derangement.

She had a colonoscopy done with the findings of a near obstructing irregular luminal rectal mass about 3-4 cm in vertical extent and extending up to about 5 cm above the anal verge, while the other aspects of the colon were normal. Multiple biopsies were taken from the mass, as well as random biopsies from other normal colonic mucosae. The histology showed well differentiated mucinous adenocarcinoma, at least Dukes B.

An examination under anaesthesia by the gynaecologists confirmed an exophytic irregular cervical mass (measuring 2 x 2.5cm) with involvement of the upper two-thirds of the vagina but free parametria and lateral pelvic walls. The mass was staged clinically as FIGO stage IIA and biopsy was taken for histology, which later reported Squamous Cell Carcinoma Large Cell Non-keratinizing.

A diagnosis of synchronous cervical squamous cell carcinoma and rectal adenocarcinoma was made. She had diverting colostomy and was subsequently commenced on neoadjuvant chemotherapy using Tabs Capecitabine 2g Bd for 14 days, IV Oxaliplatin 85mg/m² (130mg) and IV Paclitaxel 135mg/m² (220mg) 3-weekly. She is to commence concurrent chemoradiation therapy after the 4th cycle.

DISCUSSION

Cervical cancer has been reported in young patients, including teenagers, although this is a very rare occurrence.¹³ Colorectal cancers, though commoner in patients aged 50 years and above, there is a significant subgroup of patients under 30 years of age.¹³ It is even rarer to see both malignancies co-existing in a patient less than 30 years of age.¹³

The risk factors, clinicopathological features, as well as treatment approaches for both malignancies are totally different. However genetic mutations, as found in conditions like Li-Fraumeni syndrome, may predispose one to developing both malignancies synchronously and even metachronously.¹⁶

Predisposing factors for developing colorectal cancer include diets rich in animal fats, hereditary syndromes like Lynch syndrome (hereditary non polyposis coli), inflammatory bowel diseases and excessive tobacco consumption.¹³ On the other hand, the risk factors for cervical cancer include multiparity, early sexual exposure, early age at first childbirth, multiple sexual partners and spouse with multiple sexual partners, amongst other risk factors for human papilloma virus (HPV) infection.^{17,18} The patient in this case consumed animal fat routinely, made her sexual debut at 12 years and age at first childbirth was 13 years. She is Para 10⁺¹ and is married to a spouse with other sexual partners.

The pathogenesis of cervical cancer is such that over 90% are caused by HPV infections, particularly serotypes 16, 18.^{17,19} The disease often progresses from preinvasive stage to frankly malignant phase, usually over a period of 15-20 years from infection.²⁰ Colorectal cancers have a pathognomonic adenoma-

carcinoma sequence such that about 90% of sporadic colorectal cancers are said to arise from these adenomas.^{21,22}

Treatment is usually surgical excision for early diseases: trachelectomy, simple hysterectomy or total abdominal hysterectomy for cervical cancer or polypectomy and proctectomy/hemicolectomy for early rectal/colonic cancers.^{23–25} For locally advanced and inoperable cases, the preferred treatment is chemoradiation, either concurrently or sequentially.^{26,27} The total radiation dose is usually between 45Gy – 55Gy.^{28,29}

The chemotherapy option is usually tailored towards the histology. Generally, a chemotherapy regimen containing a third-generation platinum (Oxaliplatin), 5-Fluorouracil either as oral form (Capecitabine) or parenteral, is preferred for adenocarcinoma, in addition to a taxane for SCC.^{30,31}

Our patient is currently doing well on CapeOx plus Paclitaxel neoadjuvant chemotherapy, with a plan for radiation therapy to the pelvis after adequate tumour down staging.

CONCLUSION

Synchronous primary cervical and colorectal cancers are extremely rare. The risk factors for each of the malignancies may overlap with that of the other, thereby increasing the chances of synchronicity in an individual. More routine screening for cancer predisposing conditions like Li-Fraumeni syndrome is advocated in resource-constrained countries.

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