

A CASE OF OVERLOOKED ADVANCED-STAGE CARCINOMA CERVIX IN A HUMAN IMMUNODEFICIENCY VIRUS (HIV) POSITIVE PATIENT: THE NEED FOR VIGOROUS SCREENING

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Abstract

Worldwide carcinoma of the cervix is most prevalent malignancies among women owing to its nonspecific symptoms remained undiagnosed until it reaches advanced stages. This situation worst among HIV women pertaining to much lower screening rate compared to noninfected women. We put forth one such case of a seropositive patient diagnosed with stage FIGO IIIB cervical carcinoma. Histopathological examination diagnosed moderately differentiated squamous cell carcinoma of the cervix. Patient recommended for chemoradiation with concurrent chemotherapy with Cisplatin. Women infected with the HIV virus should be counselled regarding the symptoms of cervical carcinoma and worldwide healthcare providers should not neglect symptoms of leucorrhea, dysmenorrhea, and dyspareunia among HIV women and became more vigilant for rigorous screening of such patients for early diagnosis and treatments. The case underscores the urgency for comprehensive and meticulous screening protocols in this high-risk population. Early detection and intervention are paramount in managing such cases and improving patient outcomes.

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INTRODUCTION

Cervical cancer is the most common malignancy after breast carcinoma among Indian women [1]. The relationship between cervical cancer and the HIV virus is complicated. In a poorly resourced country like India, both HIV and cervical carcinoma are highly prevalent and much more likely to go overlooked [2]. The absence of effective screening and treatment leads to significantly higher morbidity and mortality amongst such patients. Advanced-stage carcinoma amongst such patients becomes extremely difficult to treat and follow up, as seen in our case. Critical scenario involving the unnoticed presence of advanced-stage cervical carcinoma in an individual living with human immunodeficiency virus (HIV) is recommended globally to undergo vigorous and periodic screening [2].

Case Presentation

A 47-year-old woman, presented in gynecology department with complaints of white discharge per vagina, post-coital bleeding, and dyspareunia along with pain in her left flank and hesitancy during urination. She was diagnosed with Human Immunodeficiency Virus (HIV) six years before without any history of multiple sexual partners, intravenous drug use, or blood transfusion. She was on the Triple drug “TLD” regimen (Tenofovir + Lamivudine + Dolutegravir) of antiretroviral

therapy for 6 years. Her general condition was fair, pulse rate 92 beats per minute and blood pressure 110/70 millimeters of mercury with no signs of pallor, edema, icterus, or cyanosis. She was per abdominally soft, with no tenderness guarding, rigidity, or organomegaly. Colposcopic per speculum examination revealed an endophytic cervical lesion which replaced the entire cervix without any apparent extra-cervical spread. Complete aceto-uptake was seen and an ulcerative lesion, showing punctate vessels with bleeding (Figure 1). On the application of Lugol's iodine, the ectocervix visible was completely pale with few mosaics and white rings around gland openings (Figure 2). Margins were blurred and there was the presence of coarse and rising terminal vasculature. Vaginal examination, showed hard growth which obliterated the upper 2/3rd of the vagina. On per-rectal examination, bilateral parametrium was apparently involved. Clinical examination diagnoses FIGO Stage III-B cervical carcinoma as there was pelvic wall involvement along with features suggestive of hydronephrosis or a non-functioning urinary tract under universal precautions, cervical biopsy was taken. Histopathological examination, of cervical biopsy was interpreted as moderately differentiated squamous cell carcinoma (Figure 3). Staining with Haematoxylin and Eosin revealed round to irregularly shaped squamous cells, arranged in

necks, medium-sized and nearly uniform cells with indistinct cell borders. Section also depicted occasional scattered inflammatory infiltrates, and congested blood vessels suggesting of Moderately Differentiated Squamous Cell Carcinoma of the cervix. A CD4 count found to be low (298/mm³). CD4/CD8 ratio turned out to be 0.8 and the polymerase chain reaction for quantitative HIV-RNA revealed a titer of 7288 copies/ml. CBNAAT examination comes negative for tuberculosis of the cervix.

Discussion

Carcinoma of the cervix is the second most prevalent cancer affecting Indian women, according to the cancer statistics 2020 the report from national cancer registry programme [3]. PAP Screening is recommended to be started at the age of 21 and done every three to five years up to the age of 65 about cervical cancer [4]. In the early stages, invasive cervical carcinoma presents with no symptoms and can only be discovered either accidentally or via routine screening. Most of its patients with cervical carcinoma failed to present for early for treatment while, those who present early don't have consolation regarding carcinoma growth is treatable; as the duration of symptoms is not proportional severity of disease. Present case presented common symptoms are leucorrhoea, postcoital bleeding, and dyspareunia. It is important to rule out tuberculosis of the cervix in low resource settings as it revealed similar symptoms of invasive carcinoma [5]. Cardinal signs of the disease are hardness, friability, fixation, and bleeding on examination. Bleeding of cervix on touch brings it to suspicious condition. Cervical cytology is an important screening approach to detect early symptomless invasive carcinoma. Colposcopic examination can reveal carcinoma and is the most profitable sites for biopsies. Cervical biopsy is the only method for definitive diagnosis and must be done in every case where carcinoma is suspected. The most common pathological variant is squamous cell carcinoma of the cervix, which was also the diagnosis in our case. Unless a cone biopsy is taken, endocervical curettage is also necessary to exclude endocervical tumours. Determination of treatment is dependent on the stage of carcinoma and general condition of the patient. As reported earlier, in the above case, the patient presented late and an advanced stage, the only possible treatment concurrent was chemoradiation, which has a longer course and increased economic burden. Rate of toxicity in HIV positive is much higher with predominance of haematological toxicity [6]. Interactions between the chemotherapeutic agents and antiretroviral drugs, lead to increased toxicity leading declined effectiveness of treatment [7]. Due to advanced stage presentation of patient, brachytherapy was avoided. Women infected with HIV have a three times increased risk of cancer of the cervix than those not affected and two times higher risk of mortality HIV negative women [8]. According to current guidelines first diagnosis of HIV infected women is done through Papanicolaou (PAP) smears, followed by another test after 6 months and subsequently smear inspection yearly [9]. Despite these recommendations, the screening rate for cervical carcinomas in HIV-infected women is substantially low leading diagnosis at advanced stages as in our case. Prognosis and treatment was decided on the basis of FIGO staging, however tumor growth beyond the pelvic wall leads to loss of all operative benefit. Detection of carcinoma at an early stage signifies early operative intervention that ultimately prevents significant morbidity and mortality amongst cervical carcinoma patients [10]. This is especially true for immunocompromised individuals as in our case report. A multidisciplinary approach

needs to be adopted as in our case where factors such as CD4 counts, increased toxicities incidence and interactions with antiretroviral drugs must be considered. It is especially important to detect invasive carcinomas in the early stages in low-resource settings as the financial burden of the disease must be considered. The morbidity caused by advanced-stage carcinoma and its treatment is entirely avoidable if routine and vigorous screening is implemented especially in vulnerable cases like ours.

Conclusions

The case underscores the urgency for comprehensive and meticulous screening protocols in this high-risk population. Early detection and intervention are paramount in managing such cases and improving patient outcomes. As seen in our case, the diagnosis of carcinoma cervix may get delayed if the symptoms like leucorrhoea are overlooked both by the patient and the healthcare providers. Delay in diagnosis leads to a significant increase in morbidity and mortality, especially amongst those who are already vulnerable due to immunocompromised states such as HIV seropositive patients. The increased risk of toxicity due to chemoradiation as well as probable interactions among chemotherapeutic agents and antiretroviral drugs generate more complications that challenge management of such cases. Hypervigilance of CD4 counts before, during, and after the course of treatment is vital, and the risk of mortality is ever present. Hence, women infected with the HIV virus should be regularly counselled regarding the symptoms of cervical carcinoma, helping them to report their healthcare providers at the earliest. Healthcare providers also need to be vigilant and take every opportunity to screen such patients in order to facilitate early diagnosis and treatment.

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