Advanced Uterine Cervix Squamous Cell Carcinoma in 17 Year Old Adolescent - Case Report

Rodrigo Renee Ferreira1, Claudio Sergio Batista1, Cristiane Bedran Millito2, Gabriela Coutinho Alves3 and Régis Rodrigues Vieira4

1Department of Gynecology and obstetrics, School of Medicine of Petropolis, Brazil
2Department of Pathological Anatomy, School of Medicine of Petropolis, Brazil
3Medical student, School of Medicine of Petropolis, Brazil
4School of Medicine of Petrópolis, Brazil

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Abstract

Introduction: Cervical cancer is the third most frequent tumor in the female population worldwide and fourth cause of death of women from cancer in Brazil. Natural history of cervical cancer usually presents a long period of precursor lesions, asymptomatic evolution, but is curable in most cases, if detected early.

Case: This report describes the diagnosis and management of the case of a 17 year old girl with advanced invasive squamous cell cancer of the uterine cervix. The patient presented intermittent vaginal bleeding for seven months with foul odor, accompanied by dyspareunia and intercourse bleeding. Prior to treatment with 26 sessions of radiotherapy and six sessions of chemotherapy and three sessions of brachytherapy, she was submitted to oophoropexy in the attempt to preserve the ovaries due to the patient’s age and minimize the damage in fertility due to radiotherapy and brachytherapy. After an initial satisfactory response with regard to lesion decrease and bleeding improvement there was tumor relapse, when it was decided, that the patient should be submitted to total exenteration, but she died three months later. An immune histochemical study found HPV subtypes 6, 11, 16 and 18.

Conclusion: This case report signalizes that, although advanced cervical cancer in very young women is rare, it should be regarded as possible and only its early diagnosis may prevent catastrophic outcomes like that.

Keywords: Uterine cervical neoplasms; Carcinogenesis; Adolescent; HPV; Radiotherapy; Adjuvant chemotherapy; Immunohistochemistry

Abbreviations: CIN: Cervix Intraepithelial Neoplasia; HPV: Human Papilloma Virus; CT: Computerized Tomography

Introduction

Cervical cancer, although largely preventable, is the most common site of gynecologic malignancy in women <35 years of age in the United States. Worldwide, cervical cancer is the second placed [1], behind only breast cancer among all types that affect women [2]. In Brazil cervical cancer is the third most frequent tumor in female population, behind only breast and colorectal cancer, and the fourth cause of cancer death in Brazil [3,4]. Cervical cancer is the third most common cancer and the fourth leading cause of cancer death in women worldwide [5]. Patient age has been posited as a risk factor for greater aggressiveness from cervical cancers. The younger they are, the more aggressive it is [6]. It seems improbable for young women to develop advanced disease, considering the classic teaching that the progression risk from mild dysplastic cervix to severe one, let alone cancer, is only 1% per year [7].

However, the cancer development in young women and especially in very young ones has led to the theory that cervical cancer must be more aggressive on them [8]. Several investigators have examined the relation between age at diagnosis and prognosis with conflicting results. In a study by Rutledge et al. [9] 250 women <35 years were matched by stage and treatment to older women. Younger women with advanced stage disease were noted to have a worse overall survival, yet they survived longer when diagnosed with early-stage disease.
Human Papillomavirus (HPV) can be detected in more than 99% of cervical cancers and is essential for the malignant transformation. More than 40 subtypes of HPV have been identified, of which at least 15 are known to be oncogenic. The most common subtypes, HPV 16 and 18, account for about 70% of cervical cancers in the United States [10].

Cervical cancer is the most common of gynecological cancers in women. High-risk human papillomavirus (HPV) is implicated as the major etiologic agent. Most invasive cervical cancers are preceded by a severe cervical dysplasia or carcinoma-in-situ and common symptoms associated with cervical cancer are postcoital and irregular vaginal bleeding; watery vaginal discharge; and physical signs associated with venous, lymphatic, neural, or urethral compression. Diagnosis of cervical cancer usually follows a physical examination and histologic evaluation of cervical biopsies. Cervical cancer is staged clinically, and stage is the most important indicator of survival, and treatment is typically dictated by its clinical staging. In general, early-stage disease is treated effectively with either surgery or chemoradiation. Advanced-stage disease is treated primarily with chemoradiation [11].

This report shows an uncommon case of advanced uterine cervical cancer in a 17-year-old girl who had a poor outcome and presented the patient’s death as a final outcome in a short period of time despite all spent efforts, so the attention of gynecologists is drawn, to keep in mind that uterine cervical cancer can occur even in very young women.

Case Report

B.S.C, 17 years old, single, residing in the city of Rio de Janeiro - RJ, sought medical attention at the Alcides Carneiro Teaching Hospital (ACTH), Petropolis-RJ, Brazil, with intermittent vaginal bleeding for seven months with foul odor, accompanied by dyspareunia and intercourse bleeding.

Specular vaginal examination showed liquid, blood, foul-smelling discharge, vaginal walls apparently with no lesions, and white and friable cervix exophytic lesion, with necrosis, measuring more than 4cm (Figure 1) in its largest diameter and located in the superior third of the vaginal cavity. At the touch, elastic vaginal wall was noted and palpable tumor in cervix covering its entire surface, with painful mobilization, and softened consistency. At rectal touch, parametrians were free.

Cervix biopsy was performed, the piece put into a sterile vial with formalin and sent to laboratory for histopathological analysis. Immunohistochemical study for HPV research was positive to types 6, 11, 16 and 18. The patient stayed in a hospital regimen with antibiotic therapy due to secondary infection of the lesion. In this period Thoracic Computerized Tomography (CT) and abdomen and pelvic Nuclear Magnetic Resonance were performed for adequate disease investigation and its staging.

The patient was submitted to laparoscopic ovarian transposition (oophoropexy) to take both from the radiation field, and after surgery was referred to 26 radiotherapy sessions and six of platinum-based chemotherapy ones. After ending of that treatment stage, the patient was reevaluated and presented significant lesion reduction, general appearance improvement, no visible necrosis points, and no significant vaginal discharge, with no foul odor.

Finally, patient received three brachytherapy sessions, with satisfactory response. Its follow-up was out by ACTH Oncoginecology service.

Three months after ending brachytherapy, patient evolved with tumor progression reaching the uterine body, both right and left parametrium, partial ureter obstruction and bilateral hydrenephrosis, mainly to the right side. So, total pelvic exenteration with confection of Bricker neo-bladder and right colostomy was performed externally and the patient was sent for outpatient follow-up.

Unfortunately, patient had bad evolution and died 3 months after exenteration procedure at 26 November 2017. Case presentation had as patient’s authorization as her responsible, and was submitted and approved by the Ethics Committee of the Faculty of Medicine of Petropolis, RJ, Brazil.

Discussion

The purpose of this work is to draw attention to cases of uterine cervical cancer in very young women who, although rare, are more aggressive than in older women. Even though guidelines for cervical cancer screening recommend starting from 25 years, we understand this case report indicates caution in this practice. Several investigators have examined the relation between age at diagnosis and prognosis with conflicting results [12]. However trends in incidence of cervical cancer in younger women have not been studied in detail, yet [13].
In those who opt for surgery, abdominal radical hysterectomy are concerned with changes in sexual function after radiotherapy.

Hysterectomy for IB2 tumor stage is selected for premenopausal women. The suggested dose of radiotherapy is 85 to 90 Gy at point A and 55 to 60 Gy at point B. Platinum is prescribed at a dose of 40 mg/m² once weekly during external radiation therapy. Radical hysterectomy for IB2 tumor stage is selected for premenopausal women who wish to preserve ovarian function and for those who are concerned with changes in sexual function after radiotherapy. In those who opt for surgery, abdominal radical hysterectomy is usually performed, body and cervix, parametrium and paracolpos, uterine vessel ligation, transection of uterosacral ligament, excision of 2cm of vaginal upper third being removed [16,17]. Neoadjuvant chemotherapy with platinum, followed by radical hysterectomy has demonstrated better results than primary radiotherapy. On the other hand, there is no available information comparing the results of chemoradiotherapy with neoadjuvant chemotherapy followed by surgery [18,19].

The most common treatment option was adopted for this stage that is radiotherapy plus simultaneous platinum-based chemotherapy, weekly, followed by brachytherapy. This treatment is Level of Evidence A [20].

This case report signalizes, although advanced cervical cancer in very young women is rare it should be considered possible and only its early diagnosis may prevent catastrofic outcomes like that.

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References


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