Two Cases Of Aggressive Squamous Cell Cervical Cancer

F Costa, A Melo, S Torres, P Branco, J Cabral

Citation

F Costa, A Melo, S Torres, P Branco, J Cabral. *Two Cases Of Aggressive Squamous Cell Cervical Cancer*. The Internet Journal of Gynecology and Obstetrics. 2008 Volume 12 Number 1.

Abstract

Background: Cervical cancer is an important cause of mortality worldwide. Screening programs are well established. The authors report two cases of highly aggressive squamous cell cervical cancers highlighting important issues. Case Reports: The first case was a IIB FIGO stage cervical cancer in a 20-year-old woman. The second was a carcinoma in situ treated with loop electrosurgical excision procedure (LEEP), in which follow-up failed to diagnose progression to IVA FIGO stage in a 15-month period. Discussion: The first case alerts to the importance of beginning cervical cancer screening after sexual activity initiation and that cytologic abnormalities in adolescents mandate close follow-up. Both cases alert to the fact that some squamous cell cervical cancers may behave in highly aggressive manners so current guidelines may fail to prevent their progression, even in immunocompetent patients.

INTRODUCTION

Cervical cancer is the most common type of cancer in women from developing regions and the second in the industrialized world [1,2]. In the first group of countries the mortality rate is 11.2 per 100,000 and in the second group 4.0 per 100,000 [3]. Despite the introduction of cervical screening programs, the incidence of cervical cancer is still high in Portugal (13.5 per 100,000) and responsible for 4.2% of malignancy related deaths among women [4]. The authors report 2 cases of highly aggressive behavior.

CASE REPORTS

CASE 1

A 20-year-old female patient complained of irregular vaginal spotting associated with pain and post-coital bleeding over the previous 4 months. Past medical history revealed first intercourse at 14 years, one previous pregnancy with vaginal delivery and genital warts diagnosed 5 years before. She was a smoker and never undergone a Pappap smear. She used oral contraception. Pelvic examination showed an infiltrative and ulcerative cervical tumor (about 5 cm in size) and bilateral parametrial induration. A cervical biopsy was performed and the histopatologic diagnosis was moderately differentiated squamous cell carcinoma. The CT scan of the pelvis and abdomen showed a cervical lesion with 4x4.5 cm in size and bilateral parametrial invasion. The cystoscopy was normal. The rectosigmoidoscopy revealed rectum extrinsic compression caused by the tumor. SCC antigen was 17.0 g/L. FIGO stage was IIB and the proposed treatment was regional radiotherapy and chemotherapy.

CASE 2

A 38-year-old woman was referred to our department with the diagnose of high-grade squamous intraepithelial lesion (HSIL) on pap smear. She was a para 2 with normal vaginal deliveries and her first intercourse occurred at the age of 17. She was a smoker, user of oral contraception, without history of abnormal vaginal bleeding. Colposcopic evaluation showed white epithelium and punctations. A direct biopsy was performed and revealed carcinoma in situ. A LEEP followed and showed a carcinoma in situ with endocervical gland involvement, and positive endocervical and ectocervical margins. She undergone a second LEEP four months later and no residual disease was identified. On the fourth month follow-up visit, a Thin-Prep cervical cytology was collected and was negative for intraepithelial lesion or malignancy (NILM) but positive for high-risk HPV DNA. Colposcopic evaluation on the second follow-up visit, three months later, was unsatisfactory (the squamocolumnar junction was not visible) although no abnormalities were observed. Thin-Prep cervical cytology screening was repeated and was NILM. Four months after the last visit, she complained of right renal colic pain and sought urological evaluation. Right hydronephrosis was diagnosed on intravenous urography. Cystoscopy was carried out and a suspicious lesion was biopsied. The histologic examination revealed invasive, keratinized and poorly differentiated squamous cell carcinoma. Pelvic MRI revealed normal

uterus and cervix dimensions, anterior cul-de-sac obliteration with bladder wall involvement and a vesico-vaginal fistula. A second opinion on the second cone pathology was obtained and returned with the same result. By this time, on examination, extension of the tumor beyond the cervix is verified, with parametrial and upper half of the vagina involvement. A high debt vesico-vaginal fistula is observed. Tumor biopsy confirmed invasive squamous cell carcinoma. FIGO stage was IVA and the proposed treatment was radiotherapy and chemotherapy.

DISCUSSION

The first case alerts to the importance of initiating cervical cancer screening after beginning sexual activity. Current guidelines defend that it should begin no later than 21 years, approximately 3 years after onset of vaginal intercourse [5]. The authors believe that education related to HPV infection is insufficient among Portuguese adolescents. Health public entities have a fundamental role in further prevention, in which vaccination of young girls plays a key role. The patient was not immunocompromised, and although adolescents may have cervical intraepithelial neoplasia (CIN) 3, progression to cancer is extremely rare in women below 21 [5]. This case, however, suggests that adolescents with cytologic abnormalities mandate close follow-up.

The recommended follow-up for LEEP treated CIN3 with positive margins is cervical cytology/PPapap test at 6 months or reexcision if both endocervical and ectocervical margins are positive [5]. A second LEEP was performed and no malignancy was observed. Thin Prep liquid based cytology has high sensitivity in detecting dysplasia and invasive cervical carcinoma [6] and was satisfactory and negative on the fourth month after the second LEEP. Positive high risk HPV DNA testing conducted to colposcopic evaluation that was unsatisfactory. The physician decided for repeated Thin Prep cytology that once again turned out negative. Considering the outcome, an endocervical curettage could have been performed [5]. This patient had previous regular and normal pap smears and was not immunocompromised. Current evidence suggests that although the risk of recurrence is correlated with a patient's margin status in cases of squamous dysplasia, conservative follow-up is possible and has a high success rate [7]. She was immediately conducted to our department following the diagnose of HSIL on pap-smear and in a 15-month period progressed to IVA FIGO stage cervical carcinoma. The local treatment failed one lesion that proved highly aggressive. Pelvic MRI showed normal cervix dimension and histology revealed poorly differentiated squamous cell carcinoma. No exophytic lesion was observed and the tumor behaved mainly in a infiltrative manner. The availability of high risk HPV DNA testing in the HPV 16 and 18 vaccination era is motivating the development of new screening strategies. Age-based screening with HPV DNA testing as primary screening test in older women, despite their vaccination condition, is expected to be more cost-effective than current screening [8]. In fact, HPV DNA testing has proven greater sensitivity than cytologic screening (Pap smears) for detection of CIN 3 and cervical cancer plus greater reliability [9].

Both cases alert to the fact that some squamous cell cervical cancers may behave in a highly aggressive manner so that current guidelines may fail to prevent their progression, even in immunocompetent patients.

References

1. Camilleri G, Blundell R. Pre-Invasive Cervical Disease and Cervical Carcinoma. Res J Med Sci 2009;3:4-11.
2. M. G. del Carmen. The Burden of Cervical Cancer in Minority Populations: Effective Strategies in Reducing Disparity . The Internet Journal of Gynecology and Obstetrics. 2009 Vol 10 No 2.
3. Stat Bite: Cervical Cancer Mortality Worlwide. J Natl Cancer Inst 2006;98:434.
4. WHO/ICO Information Centre on HPV and Cervical Cancer (http://www.who.int/hpvcentre/statistics/dynamic/ico/country_pdf/XEX.pdf?CFID=2019170&CFTOKEN=23167630)
5. NCCN Practice Guidelines in Oncology 2009 (http://www.nccn.org/professionals/physician_gls/PDF/cervical_screening.pdf).
6. Abulafia O, Pezzullo JC, Sherer DM. Performance of ThinPrep liquid-based cervical cytology in comparison with conventionally prepared Papanicolaou smears: a quantitative survey. Gynecol Oncol 2003;90:137:44.
7. Dunton C. Excisional biopsy for CIN. OBG Management 2002; 14:38-48.
8. Goldhaber-Fiebert J, Stout N, Salomon J, Kuntz K, Goldie S. Cost-Effectiveness of Cervical Cancer Screening With Human Papillomavirus DNA Testing and HPV-16,18 Vaccination. J Natl Cancer Inst 2008;100:308-320.
9. Castle P. Invited Commentary: Is monitoring of Human Papplilomavirus Infection for Viral Persistence Ready for Use in Cervical Cancer Screening. Am J Epidemiol 2008;168:138-144.

Author Information

Fernanda Costa, MD
Department of Obstetrics and Gynecology; Centro Hospitalar Tâmega e Sousa, Penafiel, Portugal

Anabela Melo, MD
Department of Obstetrics and Gynecology; Centro Hospitalar Tâmega e Sousa, Penafiel, Portugal

Sílvia Torres, MD
Department of Obstetrics and Gynecology; Centro Hospitalar Tâmega e Sousa, Penafiel, Portugal

Paula Branco, MD
Department of Obstetrics and Gynecology; Centro Hospitalar Tâmega e Sousa, Penafiel, Portugal

José Manuel Cabral, MD
Department of Obstetrics and Gynecology; Centro Hospitalar Tâmega e Sousa, Penafiel, Portugal