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OPIS PRZYPADKU
CASE REPORT

Too late for prevention, too early for disease – invasive cervical cancer in a 28-year-old woman

Zbyt późno na profilaktykę, zbyt wcześnie na chorobę – inwazyjny rak szyjki macicy u 28-letniej kobiety

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ABSTRACT

Cervical cancer is one of the most common gynecological malignancies worldwide. The main risk factor is persistent infection with oncogenic types of human papillomavirus (HPV), particularly types 16 and 18. The disease is rarely observed in young women and progresses slowly. In its early stages is often asymptomatic, which may delay diagnosis and worsen prognosis. This paper presents the case of a 28-year-old woman who reported recurrent intermenstrual bleeding and postcoital vaginal spotting. Initial clinical evaluation revealed a palpable mass and tenderness in the region of the right adnexa, raising suspicion of a tumor in that area, which was confirmed by ultrasonographic examination. Further imaging and histopathological evaluation confirmed invasive squamous cell carcinoma of the cervix, with infiltration of adjacent structures and a concurrent neoplastic lesion of the right adnexa what made it inoparable. This case highlights the importance of regular cervical cancer screening and timely diagnostic evaluation, particularly in younger women, whose symptoms may be nonspecific. Early detection significantly improves the chances of effective treatment and long-term survival.

KEYWORDS

cervical cancer, abnormal uterine bleeding, oncological prevention, HPV infection

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STRESZCZENIE

Rak szyjki macicy jest jednym z najczęstszych nowotworów ginekologicznych na świecie. Głównym czynnikiem ryzyka jest przewlekła infekcja onkogennymi typami wirusa brodawczaka ludzkiego (*human papillomavirus* – HPV), szczególnie 16 i 18. Choroba rzadko występuje u młodych kobiet, a jej rozwój postępuje wolno. We wczesnym stadium często przebiega bezobjawowo, co może opóźniać rozpoznanie i pogarszać rokowanie. W pracy przedstawiono przypadek 28-letniej pacjentki, która zgłosiła się z powodu nawracających krwawień międzymiesiączkowych oraz plamień kontaktowych. Wstępna ocena kliniczna wykazała obecność oporu i tkliwości w rzucie przydatków prawych – podejrzenie zmiany guzowatej w tej okolicy, potwierdzonej w badaniu ultrasonograficznym. Dalsza diagnostyka obrazowa i histopatologiczna potwierdziła obecność inwazyjnego raka płaskonabłonkowego szyjki macicy z naciekiem na sąsiednie struktury oraz współistniejącą zmianą nowotworową przydatków prawych, co uniemożliwiło leczenie operacyjne. Na podstawie opisanego przypadku należy podkreślić znaczenie regularnych badań przesiewowych i szybkiej diagnostyki w kierunku raka szyjki macicy, zwłaszcza u młodszych kobiet, u których objawy mogą być mało charakterystyczne. Wczesne wykrycie nowotworu znacznie zwiększa szanse na skuteczne leczenie oraz przeżycie.

SŁOWA KLUCZOWE

rak szyjki macicy, nieprawidłowe krwawienia z dróg rodnych, profilaktyka onkologiczna, wirus HPV

INTRODUCTION

Cervical cancer ranks among the most frequent gynecological cancers globally. The most significant risk factor is persistent co-infection with high-risk human papillomavirus (HPV) subtypes, primarily types 16 and 18. In the early stages, the disease may be completely asymptomatic. However, symptoms such as intermenstrual bleeding, vaginal spotting or bleeding after sexual intercourse, and visible changes to the cervix should raise clinical concern [1].

CASE REPORT

A 28-year-old woman presented to the Outpatient Department of the hospital with abnormal intermenstrual bleeding – current bleeding with clots had persisted for four days. She reported spontaneous episodes of bleeding for approximately eight months, along with postcoital vaginal spotting and right-sided sciatica-like pain. The patient had a cytology result indicating the absence of cells from the cervical canal and the presence of HPV 16 infection.

On physical examination, slight vaginal bleeding was noted, and the cervix appeared firm on palpation. There was also a palpable mass and pain during palpation in the area of the right adnexa – raising suspicion of a tumor in this region. Transvaginal ultrasound revealed a hypoechoic cyst, most likely originating from the right adnexa measuring 50 × 50 × 45 mm. Additionally, there was a structure next to the uterus which could be pathological tube (Figure 1) and a mass located in the retroperitoneal space adjacent to the right iliopsoas muscle, measuring 47 × 39 mm (Figure 2). Diagnostic imaging was extended to include computed tomography (CT), which also showed irregular thickening of the cervix, and confirmed all the pathological lesions observed on ultrasonography.

Due to the patient's increasing pain, a decision was made to perform laparoscopy, during which the enlarged right fallopian tube with the tumor was removed. No other abnormalities in the right adnexa were observed intraoperatively. The postoperative specimen was sent for histopathological examination.

Due to continued moderate vaginal bleeding and the absence of a cytology result, cervical canal curettage and cervical biopsy were performed. An abundant tissue sample was obtained from the cervical canal and cervix, suspicious for neoplastic changes. The specimen was sent for histopathological examination.

Repeated ultrasound evaluation revealed right-sided hydronephrosis and enlarged lymph nodes (not seen at the beginning) in the tissue surrounding the cervix (Figures 3 and 4). These findings were confirmed on contrast-enhanced magnetic resonance imaging (MRI), which revealed thickening of the uterine walls, cervix, and bilateral parametria, along with heterogeneous enhancement of the right adnexal mass and adjacent lymph nodes. Laboratory tests showed mild anemia (Hb 10.3 g/dL) and elevated inflammatory markers (CRP 58 mg/L). Renal function was within normal limits.

Histopathological analysis confirmed cervical squamous cell carcinoma (non-keratinizing, G2, p16+, CK5/6+, Ki-67 > 50%) and a poorly differentiated epithelial neoplasm of the right adnexa with an inconclusive immunoprofile (ER−, p53+, CDX-2−). The patient was referred for multidisciplinary oncologic evaluation and treatment planning.

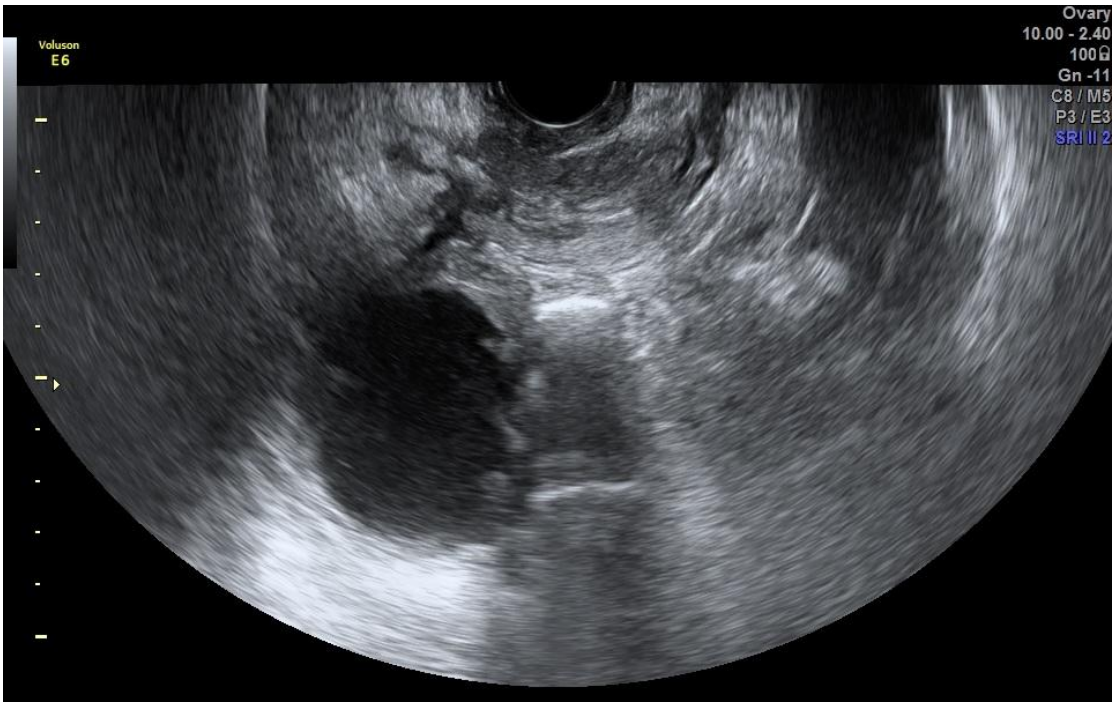

Fig. 1. Right adnexal lesion – right fallopian tube (preoperative).

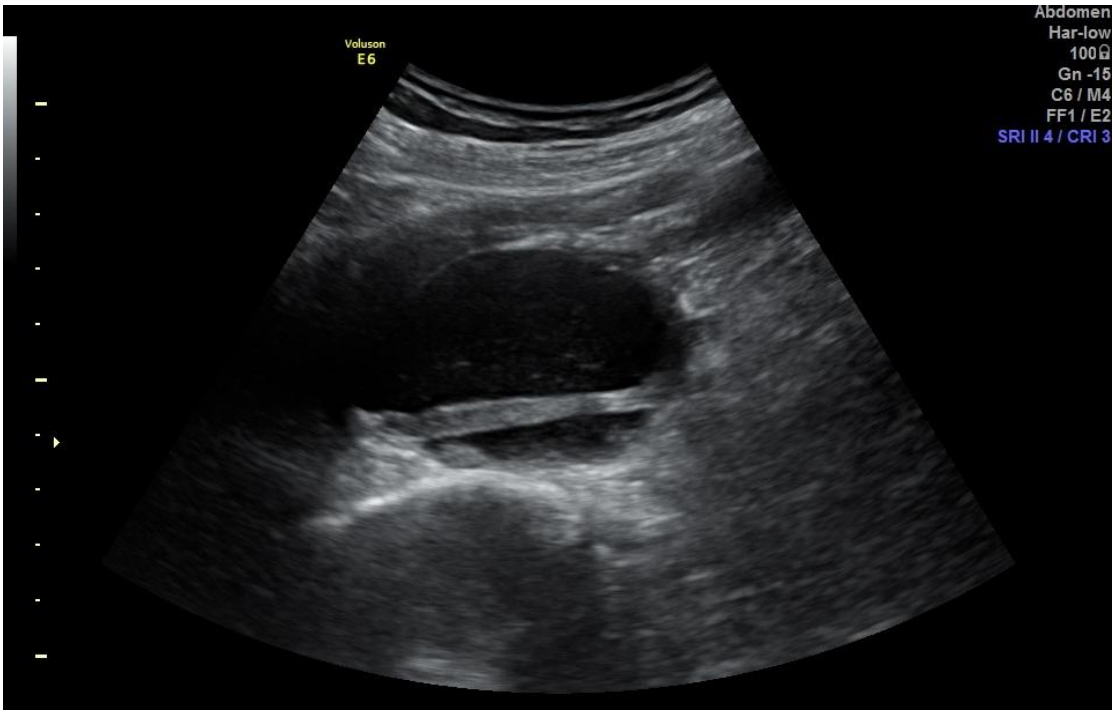

Fig. 2. Cyst in the iliopsoas muscle with the sciatic nerve passing through it.

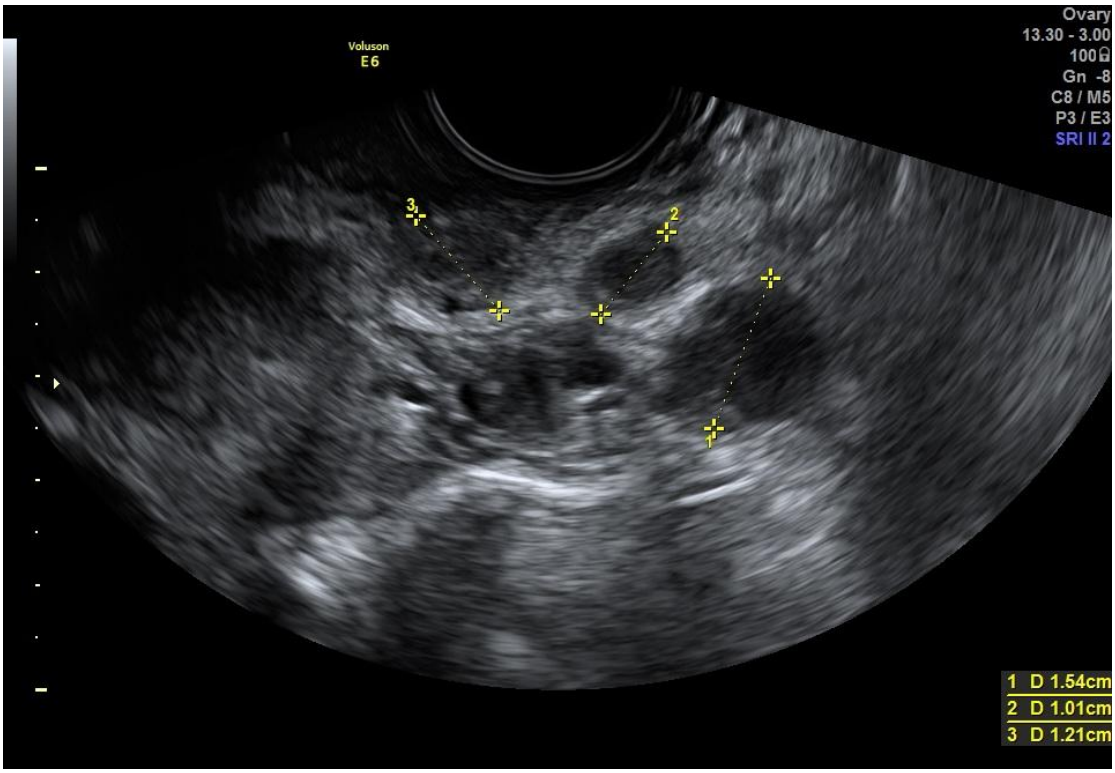

Fig. 3. Left peri-adnexal lymph nodes (post-laparoscopy).

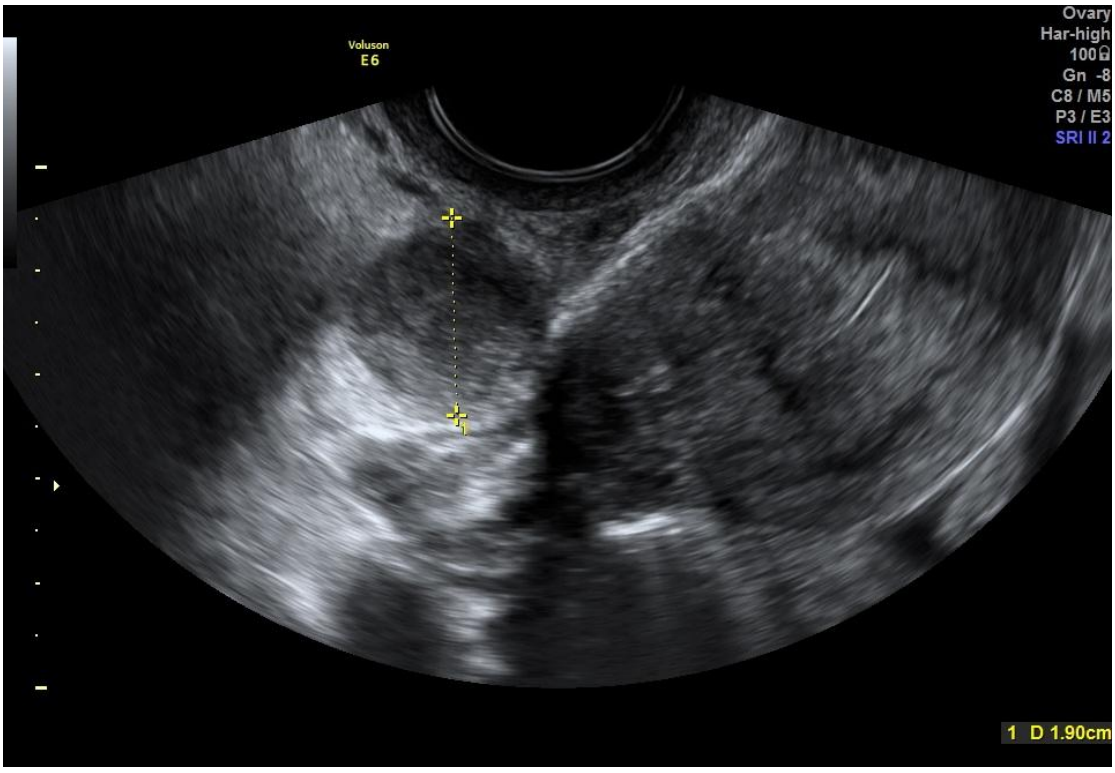

Fig. 4. Right adnexal mass (lymph node) adherent to the uterus.

DISCUSSION

Cervical cancer is the fourth most commonly diagnosed malignancy among women globally [1]. In Poland, population-based screening programs include cervical cytology and HPV testing [2]. However, compared to Western Europe, screening coverage remains low, contributing to higher incidence and mortality rates [3]. This can be explained by the low percentage of women reporting for preventive examinations, which may result from low social awareness of the risk of not taking preventive measures [4]. Early symptoms are often nonspecific, including acyclic bleeding and postcoital spotting [5], which hinders timely diagnosis and worsens prognosis.

Key risk factors are related to HPV infection and include early onset of sexual activity, multiple sexual partners, and a history of sexually transmitted infections. Additional contributors include high endogenous estrogen levels (e.g., in obesity), low socioeconomic status, smoking, and genetic predisposition [5,6,7,8,9,10,11].

HPV-induced carcinogenesis typically occurs at the squamocolumnar junction of the cervix, where persistent infection disrupts the host immune response and cell cycle regulation. This leads to dysplastic cell proliferation and progression to invasive cancer [1,12]. The most common histologic type is squamous cell carcinoma (~75%), followed by adenocarcinomas (~25%), including adenosquamous variants [13,14]. These tumors originate from cervical intraepithelial neoplasia (CIN), carcinoma in situ (CIS), or adenocarcinoma in situ (AIS) [1]. Rare histologic subtypes include neuroendocrine tumors, small cell carcinomas, rhabdomyosarcomas, and lymphomas [15,16,17,18].

Diagnosis relies on speculum examination and cervical cytology with HPV genotyping. Colposcopy with targeted biopsy and endocervical curettage is indicated in cases of abnormal cytology or visible lesions. Imaging modalities such as CT, MRI, or PET-CT are essential for staging based on FIGO and TNM systems [1,19,20].

Treatment options vary by disease stage and include surgery, radiotherapy, and chemoradiation [1]. Prognosis is favorable in early-stage disease (44% of cases), with a 5-year survival rate of up to 92%. This drops to 60% in locally advanced cases and 19% in cases with distant metastases [1].

CONCLUSIONS

This case underscores the nonspecific nature of early cervical cancer symptoms and emphasizes that young women are not immune to the disease. Considering the natural progression of HPV-related cervical neoplasia, robust screening efforts and public health education remain critical. Furthermore, it is important for clinicians to ensure the quality of the collected cytology sample, as it determines the accuracy of the diagnosis. Despite available programs, patients participation remains suboptimal, and increasing awareness is vital to improving early detection and outcomes.

Authors' contribution

Study design – S. Woźniak
Data collection – T. Bryś, B. Rembielak-Stawecka
Manuscript preparation – T. Bryś
Literature research – T. Bryś, B. Rembielak-Stawecka, S. Woźniak
Final approval of the version to be published – B. Rembielak-Stawecka, S. Woźniak

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