

# Primary double invasive cervical carcinoma, squamous cell carcinoma and adenocarcinoma - case report

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## Summary

A case of 56-year old women with double primary invasive cervical carcinoma, squamous cell carcinoma and endometrioid adenocarcinoma is presented. The patient was subjected to radical abdominal hysterectomy with pelvic and paraaortic lymphadenectomy. Surgery was followed by radiotherapy. Since the treatment the patient has been doing well and is free of any signs of relapse of the disease.

*Key words:* Cervical carcinoma; Squamous cell carcinoma; Adenocarcinoma.

## Introduction

Cervical carcinoma is the second most common carcinoma of the female reproductive system. Squamous cell carcinoma accounts for 85%-90% of all cervical carcinomas, while adenocarcinoma accounts for about 10%-15% of all cervical carcinomas [1, 2]. The incidence of cervical carcinoma is 7.25/100,000 women and the mortality is 2.04/100,000 women [3]. The mean age for cervical carcinoma is 52.2 years, and the distribution of cases is bimodal, with peaks at 35-39 years and 60-64 years [4]. The major risk factor for development of invasive cervical carcinoma is HPV infection, predominantly types 16 and 18, high parity, increasing number of sexual partners, low socioeconomic status, and positive smoking history [5, 6, 7]. The first symptoms of invasive cervical carcinoma are vaginal bleeding and unusual vaginal discharge. The main types of cervical carcinoma treatment are surgery and radiotherapy [8, 9]. The prognosis in patients with cervical carcinoma is markedly affected by the extent of disease at the time of diagnosis. The major factors that influence prognosis include stage, tumor size, histologic type, degree of stromal invasion, lymph-vascular space invasion, parametrial invasion and pelvic lymph node status [10, 11]. The prognosis is less favorable in patients with adenocarcinomas in comparison to those with squamous cell carcinomas, regardless of the stage of the disease [12].

## Case Report

A 56-year-old nulliparous patient was admitted to our clinic due to vaginal bleeding. Bleeding started ten days before admission to the clinic. She had been menopausal for six years and had normal weight and blood pressure values. Laboratory blood

analyses evidenced mild anemia and a high erythrocyte sedimentation rate of 60/110. The lung X-ray and cardiogram were normal. She did not have regular gynecological check-ups and her last examination had been performed six years before. Family history showed no evidence of malignancies. On vaginal examination, mild cervical hemorrhage was noted, while the cervix was barrel-shaped, hypertrophic and of solid consistency. The uterine corpus was of normal size and solid consistency. The right and left adnexal areas were clear. Transvaginal color Doppler ultrasound (US) examination revealed that the uterine cervix was 35 x 40 mm, the uterine corpus 50 x 33 x 30 mm, while endometrial thickness was 1.3 mm. The size of the right and left ovary was 28 x 19 mm and 27 x 22 mm, respectively. In the tumor blood vessels, the flow was registered with a resistance index of 0.40. The peritoneal cavity was free of ascitic fluid. US of the abdominal organs was normal. The pelvic and paraaortic lymph glands were not enlarged. Colposcopy and biopsy of the uterine cervix were performed. The CA 125 tumor marker value was elevated to 80 mIU/ml. Magnetic resonance imaging (MRI) of the small pelvis revealed that the pelvic lymph nodes were not enlarged nor did the parametria have any pathological signs. The final pathological diagnosis of the uterine cervix biopsy was invasive squamous cell carcinoma of the uterine cervix (G2N2). The patient was subjected to radical abdominal hysterectomy with pelvic and paraaortic lymphadenectomy. No suspicious liver, gastric, intestinal, omental and peritoneal changes were evidenced intraoperatively. The final histopathological findings were primary double invasive cervical carcinoma, invasive keratinizing squamous cell carcinoma of the cervix, G2, and invasive adenocarcinoma of the endometrioid type, G1. Depth of invasion was approximately 3.5 cm. The histological finding of the neoplasm is presented in Figure 1. Other findings included endometrial cystic atrophy (Figure 2). The ovary, fallopian tubes, parametria, pelvic and paraaortic lymph nodes were without malignant signs. Staging was based on the FIGO clinical practice guidelines [13]. According to FIGO classification, the tumor was IB1 in our case. After surgery, the patient underwent combined stage radiotherapy, i.e., external teletherapy and intracavitary brachytherapy. Since treatment the patient has been well without any signs of relapse of the disease.

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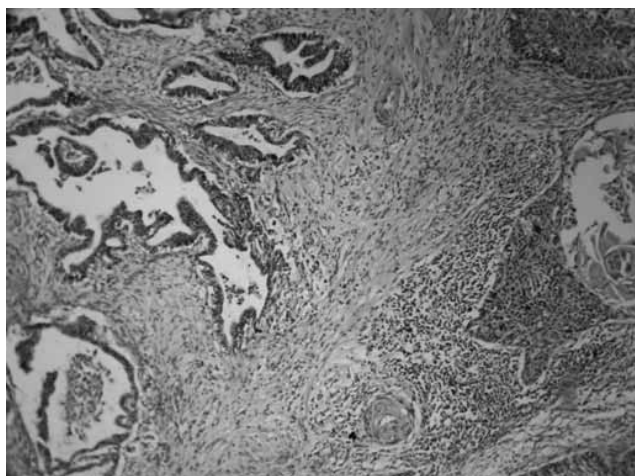


Fig. 1

Figure 1. — Primary double invasive cervical carcinoma: endometrioid adenocarcinoma versus keratinizing squamous cell carcinoma.

Figure 2. — Endometrial cystic atrophy.



Fig. 2

## Discussion

Squamous cell carcinoma is the most common histological type of invasive cervical carcinoma. The incidence of invasive disease in the United States and in other developed countries is decreasing because it is being diagnosed earlier [14]. The incidence of cervical adenocarcinoma appears to be increasing relative to that of squamous cell carcinoma [12]. Adenocarcinoma may be detected by cervical sampling but less reliably so than squamous carcinomas. A definitive diagnosis may require cervical conization. Concomitant onset of both types of carcinomas is rare. Invasive adenocarcinoma may be pure or mixed with squamous cell carcinoma. Based on the World Health Organization data, approximately 500,000 women are affected with cervical carcinomas each year, out of whom approximately 250,000 die of the disease [15]. The mean age for cervical carcinoma is 52.2 years [4]. Our patient was 56 years old. The reported risk factors for development of squamous cell carcinoma include obesity, high parity, and long-term application of oral contraceptives, HPV infection, and smoking [5, 6, 7]. Long-term application of oral contraceptives is a risk factor for onset of adenocarcinoma, while smoking has had no influence on increased risk for onset of this type of carcinoma [6]. HPV infection types 16 and 18 increase the risk of development of both squamous cell carcinoma and adenocarcinoma of the uterine cervix [7], while Chlamydia trachomatis serotype 6 infections are most commonly associated with the consequential development of cervical squamous cell carcinoma [16]. Our patient has never been pregnant, has never used oral contraceptives, and was a non-smoker. Cervical carcinoma is most frequently detected in the early phase of development due to accessibility of the cervix for colposcopic examination and performing Pap smears. In our case, the carcinoma was diag-

nosed in the invasive form since the patient had failed to undergo regular gynecological check-ups. Vaginal bleeding is the most common symptom in the invasive stage of the disease which was also present in our patient. Based on FIGO classification, our patient had Stage IB1 disease. At the time of disease detection, 38% of patients are in Stage I, 32% in Stage II, 26% in Stage III and 4% in Stage IV [17]. In addition to colposcopy and Pap, color Doppler US also plays an important role in the detection of carcinoma. Application of transvaginal color Doppler US led to detection of low values of the resistance index (RI) in intratumoral blood vessels of approximately 0.40 in our case. The RI is significantly lower in patients with cervical carcinoma than in healthy women [18]. CA 125 was elevated to 80 mIU/ml in our case. Other authors reported increased values of the marker in 33% of patients with cervical carcinomas [19]. The main treatment for cervical carcinoma is surgery and radiation therapy. Radiation therapy is most commonly applied postoperatively. Early-stage cervical adenocarcinoma primarily treated by surgical intent has a very low risk of paraaortic metastases. Nerve-sparing radical hysterectomy with pelvic lymph node dissection and pre- and postoperative irradiation remains the treatment of choice for most patients with early-stage and even Stage IIB cervical cancer [20]. Squamous cell carcinoma has a better prognosis than adenocarcinoma, regardless of the stage of disease. Five-year survival rates were 90% versus 60%, 62% versus 47%, and 36% versus 8% for Stage I, II and III, respectively [12]. The absolute 5-year survival rates for the patients in Stage IA2, IB1, IB2, IIA and IIB were 94.4%, 90.7%, 84.1%, 71.1% and 55.4%, respectively [20].

Our patient was subjected to radical hysterectomy with paraaortic and pelvic lymphadenectomy. After surgical treatment, the patient underwent radiotherapy and since treatment the patient has been well.

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