

# Isolated recurrence of early-stage cervical cancer in the abdominal wall with suboptimal surgery

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## Summary

In this report, the authors present the case of a 47-year-old woman with an isolated recurrence of early-stage cervical cancer treated with suboptimal surgery of the abdominal wall and that subsequently underwent radiotherapy.

*Key words:* Cervix, Cancer, Recurrence, Hysterectomy, Abdominal wall.

## Introduction

Cervical cancer is the most common cancer in developing countries, and ranks second in the world after breast cancer [1]. Because this female genital tract tumor's most important clinical signs are vaginal bleeding and foul-smelling discharge, it has a long pre-invasive set period, theoretically its early diagnosis can be made by using effective screening methods, and patients are diagnosed mostly in the precancerous period. The classically used screening method for years has been the conventional Pap smear test, and invasive cervical cancer incidence in developed countries has decreased significantly with this method [2]. In the following years the relationship between pre-invasive and invasive cervical cancer, particularly with high-risk HPV types, has been verified in the ratio close to 100 % with the human papillomavirus (HPV) and it has been added to the screening methods with Pap smear test [3].

According to international staging system, in case of parametrial invasion, though its treatment is basically surgical, in patients with Stage IIb it is not appropriate. Radical hysterectomy and lymph node dissection, which are based on removing parametrial tissue, form the basis of the surgical treatment. After this procedure, neoadjuvant radiotherapy and/or chemotherapy can be administered to patients with appropriate indications [4]. To apply the surgical treatment and decide on the appropriate patients to be treated, clinical staging gains importance for patients diagnosed with cervical cancer. Radiological imaging techniques such as MRI or CT are used in order to evaluate the

parametrial tissue, as well as clinical approaches such as pelvic examination under general anesthesia [5].

Despite the surgical procedures performed by experienced surgeons and the appropriate and effective radiotherapy/chemotherapy treatment for the patients, local tumor recurrence in cervical cancer is above 30%, and often localized in the vaginal cuff [6]. Recurrence depends on many factors such as clinical stage, histologic type, and tumor grade, and is the most important cause of poor prognosis and low survival rate [7]. In this case report, the authors will discuss, with the accompanying literature, the tumor recurrence in the anterior wall of the abdomen of a patient who had been surgically treated for cervical cancer and subsequently underwent radiotherapy.

## Case Report

A total abdominal hysterectomy and bilateral salpingo-oophorectomy (TAH+BSO) process was applied to a 47-year-old patient four years prior because of a benign gynecological reason, and in pathology results, unexpectedly a 3- and 1.5-cm-diameter squamous cell carcinoma was identified in the cervix in two separate focuses. For this reason, another operation was planned for the patient and as complementary surgery, radical parametrectomy and pelvic-para-aortic lymphadenectomy were also included. Seventy-one lymph nodes, 49 of which were from the pelvic region and 22 from the para-aortic region, were resected and pathological results did not identify any tumor cells. A high-dose-rate of intracavitary brachytherapy in six fractions of 600 cGy was applied to the patient. After this treatment, the patient had been followed routinely in the gynecologic oncology department. The patient, without any complaint for almost four years after surgery and radiotherapy, was readmitted to the clinic with

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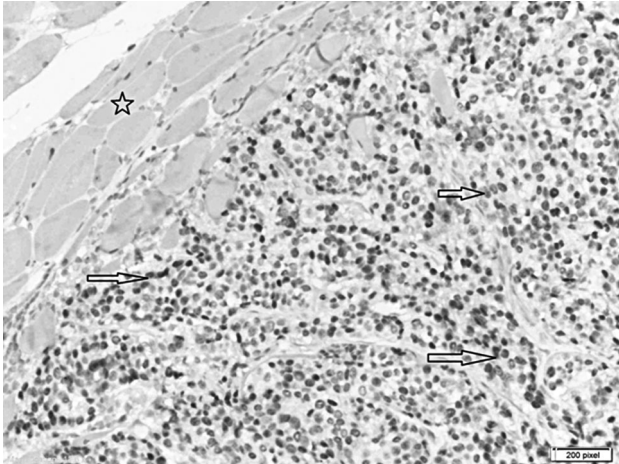


Figure 1. — Nuclear p63 positivity (as indicated with the arrows) as prepared immunohistochemically from the pathological specimen. The star indicated striated muscle fibers.

a sudden though palpable mass complaint in the abdominal wall. During the examination, a 10×15-cm fixed and hard mass was palpated in the patient's anterior abdominal wall. MRI, while holding the abdominal rectus muscles, and after hyperintense and heterogeneous contrast material was injection, showed specular extensions to the subcutaneous fatty tissue and a 9×6×8 cm solid mass lesion was located which showed significant contrast. Also it was revealed that this mass had no relationship with abdominal structures. The patient, in light of this information, underwent surgery again with pre-diagnosis of cervical cancer metastases.

In accordance with the procedures, a vertical incision was made in the abdomen. During the exploration, a 10×15-cm in diameter tumoral mass, covering abdominal muscle and fascia, and having no relationship with intra-abdominal cavity, was observed. This mass was resected with rectus muscle and fascia which it invaded. The resected material was sent for frozen examination and the result was a malignant tumor, with nuclear p63 and membranous CK 5/6 positivity, which was in accordance with squamous cell cancer in immunohistochemical examination of specimen (Figure 1). The anterior abdominal wall was repaired with polypropylene mesh. The patient whose general condition was good in clinical follow-ups, was discharged with the condition to use an abdominal girdle.

## Discussion

Although cervical cancer is a major health problem in developing countries, many patients are diagnosed during the pre-invasive cervical dysplasia or at a very early stage of cervical cancer, thanks to effective screening methods. In the present conditions, with appropriate surgical treatment and adjuvant chemotherapy/radiotherapy options, cervical cancer is treated effectively. However, recurrence is a major health problem for these patients. Studies show that this recurrence rate, according to FIGO staging system, is about 10% in tumors in Stages Ib-IIa, and about 60% in Stages

Ib-IVa [8].

Stage of disease, positivity of lymph node metastasis, and applied adjuvant and neoadjuvant chemoradiotherapies are significantly effective in reducing recurrence rates [7]. Although the treatment of cervical cancer has been clearly expressed in the light of the present information, the evaluation of the cervix cannot be fully made for many reasons, and basic hysterectomy is applied for different motives in those who actually have cervical cancer; the latter is diagnosed according to the final pathological results. This requires a second and a complementary operative and post-operative regimen, and extends the application period of adjuvant treatment, thus both survival span becomes shorter and recurrence rates increase significantly [8]. In a study in which 32 patients were diagnosed with cervical cancer and treated accordingly, although the recurrence rate was identified as 34.4 %, recurrence areas were considered to be in remote areas, such as in vaginal wall, pelvic, liver, lungs, and bone tissue [9]. In another study with patients diagnosed with early-stage cervical cancer and treated with basic hysterectomy, the recurrence rate was higher when compared to the group treated with radical hysterectomy [10].

In the present case, cervical cancer had not been identified in the first surgery, but was confirmed with paraffin block studies of the hysterectomy material. Subsequently, the patient required a second surgery during which treatment was completed. Afterwards, radiotherapy was administered to the patient. The prolonged treatment period is considered to be effective on the recurrence development identified in the postoperative fourth year in the patient in the light of literature information, and this distinguishes this case from similar cases published before due to the recurrence region. Cervical cancer recurrence observed exclusively in the anterior abdominal wall represents the first published case. As a result, cervical cytology and appropriate evaluation of the tissue, even in patients scheduled for surgery for benign causes, is the gold standard in the diagnosis of microinvasive and/or early-stage cervical cancer. Thus, the diagnosis of cervical cancer is not postponed and optimal surgical treatment is applied to patients. With this approach, maximal survival time and minimal recurrence rates are reached particularly in patients with a diagnosis of cervical cancer.

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