

DELAYED RECURRENCE OF CERVICAL CANCER AFTER RADICAL HYSTERECTOMY FOR CARCINOMA *IN SITU*

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Cervical cancer is the leading gynecologic cancer in Taiwan. For the early stage of this cancer, aggressive treatment, i.e. radical hysterectomy, is performed with a very good prognosis. After years of promoting the necessity of Pap smear examinations, the early detection of high-grade squamous intraepithelial lesions (HSIL) has been made much easier, and the incidence of these cases has increased yearly. In this stage of disease, conservative treatment with a loop electrosurgical excision procedure (LEEP) or cold knife conization can eradicate the lesion successfully, with good control of the disease. However, 20–30 years ago, carcinoma *in situ* (CIS) was treated as an early stage of cancer, and simple abdominal hysterectomy, or even radical hysterectomy with pelvic lymph node dissection, was sometimes performed. Logically, it should result in a complete cure. However, we have a patient who had a recurrence of cervical cancer 27 years after an extended operation. This case is described below.

A 71-year-old woman, gravida 6, para 4, abortus 2, was admitted to our hospital in November 2006 because of the finding of a vaginal cuff mass. This patient's medical history revealed that she underwent a radical hysterectomy, bilateral salpingo-oophorectomy and bilateral pelvic lymph node dissection for cervical CIS at Taipei Medical University Hospital 27 years previously. After that, she received regular gynecologic follow-up. Her latest Pap smear was done at Mackay Memorial Hospital in December 2005, with normal cytopathologic findings. However, she had a small amount of whitish vaginal discharge for 1 month, but no unpleasant scent, bloody discharge or bowel/urinary problems

were noted. By colposcopic examination, a vaginal cuff mass measuring about 2 cm in diameter was found. A vaginal cuff biopsy was done, revealing the presence of squamous cell carcinoma. Hence, with a diagnosis of vaginal cuff carcinoma and possible recurrence of her cervical cancer, she was admitted for further cancer work-up. Pelvic magnetic resonance image, cystoscopy and rectoscopy were performed. No bladder or rectal invasion was noted, but two ovoid, enhanced, well-defined solid tumors of 3.5 cm and 4.5 cm were located between the urinary bladder and rectum, in the left pelvic cavity.

Laparotomy with partial vaginectomy for excision of the mass in the vaginal cuff was performed on November 16, 2006. The peritoneal cavity was explored thoroughly, and no metastatic tumor was found. The vaginal apex was exposed, and the mass was located at the vaginal apex, just between the bladder and the rectum. No serosal involvement was found (Figures 1 and 2). The whole mass with the surrounding tissue was grasped with Allis clamps and excised completely (Figure 3). The vaginal edges and the peritoneum were sutured with 2-0 Vicryl. After thorough hemostasis,

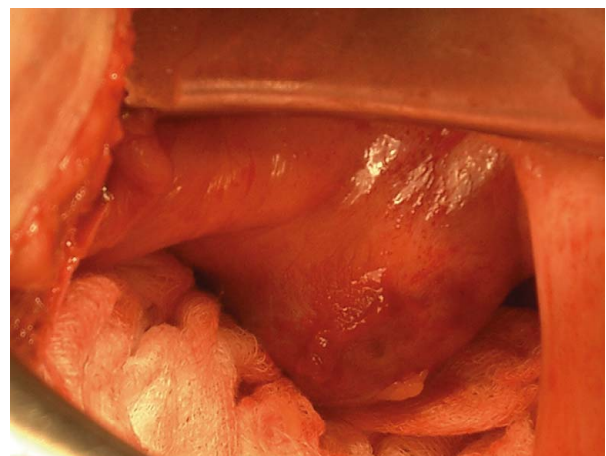


Figure 1. The mass above the vaginal apex was exposed.



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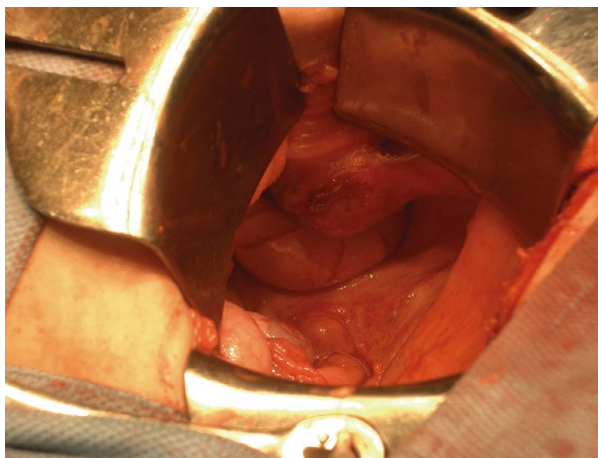


Figure 2. The vaginal apical mass was located between the urinary bladder and the rectum. No tumor invasion to these two organs was seen.



Figure 3. The apical mass was excised completely. The gross tumor was marked.

the abdominal wall was closed layer-by-layer. Finally, the skin was closed with skin staples. The total blood loss was only about 250 cm³. This patient recovered uneventfully and was discharged from the hospital 4 days after the operation. The final pathology report showed that the cancer mass was excised completely, with no involved surgical margins. Finally, adjuvant pelvic radiotherapy was delivered from December 13, 2006 to the end of January, 2007. The treatment was well tolerated by the patient, and no major side effect was recorded.

Cervical cancer is preventable by early detection and treatment of HSIL, i.e. carcinoma intraepithelial neoplasia (CIN) 2 and 3. Conservative treatment with LEEP or conization is currently the standard procedure; this simple operative method can reduce the risk of invasive cervical cancer by 95% [1] and the rates of recurrent smear abnormalities of 5% at 24 months [2] and 8% at 48 months [3]. LEEP was first reported by Prendiville et al in 1989 [4]. It is now a widely used

procedure for the diagnosis and treatment of HSIL, because it has the advantage of being a potentially curative outpatient excisional procedure which provides a specimen for histologic diagnosis and assessment of the excision margins. In terms of both the costs and the short-term outcome, it compares favorably with local destructive and other excisional techniques [5–8].

Twenty to thirty years ago, however, more aggressive procedures, i.e. simple hysterectomy or radical hysterectomy and bilateral pelvic lymph node dissection, were offered for the treatment of CIS, because it was regarded as a cancer at that time. Theoretically, this disease should be eradicated completely by such extensive surgical methods. However, there were four retrospective studies conducted in the United States and United Kingdom [9–11], which reported that vaginal intraepithelial neoplasia occurred in the vaginal cuff of the patients who had undergone simple hysterectomies for treating CIN or adenocarcinoma *in situ* and were followed up for up to 20 years. The estimated percentage of women who remained Pap smear-negative was 98% at 5 years, 98.4% at 10 years and 96.5% at 20 years. The authors emphasized that the continued use of Pap smears in post-hysterectomy patients was necessary, regardless of the reason for hysterectomy. They also suggested that cytologic screening of all women with a history of CIN, who had undergone a hysterectomy, was indicated for the first 2 years after hysterectomy. Thereafter, the estimated incidence of 0.7/1,000 women-year is higher than in the general population but is not a sufficient reason to screen more frequently.

To date, this is the first case with recurrent disease 27 years after radical hysterectomy for CIS. Besides that, the disease progressed from CIS to a frankly invasive squamous cell carcinoma tumor while the mass was located in the peritoneal cavity, above the vaginal cuff. Fortunately, the tumor mass could be removed completely, and no metastatic tumor was found in the peritoneal cavity.

As a conclusion, long-term yearly pelvic examinations and Pap smears are necessary for all women who have undergone hysterectomies for HSIL.

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