

# RECURRENT SQUAMOUS CELL CARCINOMA OF THE UTERINE CERVIX IN AN ABDOMINAL INCISION 2.5 YEARS AFTER A RADICAL HYSTERECTOMY

Dah-Ching Ding\*, Tang-Yuan Chu, Yung-Hsiang Hsu<sup>1</sup>

*Departments of Obstetrics and Gynecology, and <sup>1</sup>Pathology, Buddhist Tzu Chi General Hospital, Tzu Chi University, Hualien, Taiwan.*

Recurrence of carcinoma of the uterine cervix mainly occurs locally or regionally after treatment. The most frequent recurrence sites are the parametrium, pelvic lymph nodes, and vagina. Distant metastasis usually occurs in the lungs, bone, and liver. The incidence of incisional scar recurrence from cervical carcinoma is low, ranging from 0.1% to 2% [1].

We present a case of scar metastasis in a patient 2.5 years after a radical hysterectomy and chemotherapy for cervical cancer.

A 45-year-old woman presented to our clinic with a mass over a prior surgical scar. Two and a half years earlier, she had undergone a radical hysterectomy and pelvic lymph node dissection via a Pfannenstiel incision for treatment of well-differentiated stage 1b squamous cell carcinoma of the uterine cervix. The pathology report confirmed the presence of a 2.5-cm squamous cell carcinoma with parametrial involvement, but the lymph nodes were negative and there was a clear surgical margin. The patient refused postoperative adjuvant chemoradiation therapy at that time.

On examination, a nodular tumor of 3 × 3.5 cm was noted in the scar of the previous Pfannenstiel incision. No locoregional recurrence was found in the vaginal vault or pelvis after the patient was evaluated with a pelvic examination, Pap smear, and computed tomographic scan. An irregular mass measuring 3.3 × 3.5 cm arising from the scar extending to the right rectus abdominis muscle was noted on abdominal ultrasound. Local excision of the tumor was then performed. The pathology report confirmed a metastatic squamous cell carcinoma (Figure). Chemotherapy with cisplatin



**Figure.** Scar recurrence of squamous cell carcinoma with keratin pearl formation (hematoxylin and eosin, 40×).

(40 mg/m<sup>2</sup>) on day 1 plus topotecan (0.6 mg/m<sup>2</sup>) on days 1 to 3 every 3 weeks was administered. Unfortunately, another tumor, measuring 5 × 3 cm, recurred at the upper edge of the second time of operation after five courses of chemotherapy. Wide local excision of the tumor of the superficial fascia of the right rectus abdominis muscle and mesh repair of the abdominal wall were subsequently performed. Two courses of postoperative adjuvant chemoradiation consisting of radiotherapy of 5,000 cGy and chemotherapy with cisplatin 75 mg/m<sup>2</sup> at 3-week intervals were also administered.

The patient did well on follow-up and had had no evidence of disease at 14 months since her last treatment.

Cervical carcinoma metastasis to the skin is an uncommon event. To date, fewer than 35 cases have been reported [2]. Cancers of the colon, gall bladder, kidneys, ovaries and urinary bladder are known to give rise to surgical scar recurrence [3]. The possible mechanisms of developing recurrence at the surgical scar may be by direct seeding of tumor cells, or by hematogenous or lymphogenous spread. Retrograde spread of



\*Correspondence to: Dr Dah-Ching Ding, Department of Obstetrics and Gynecology, Buddhist Tzu Chi General Hospital, Tzu Chi University, 707, Chung Yang Road, Section 3, Hualien 970, Taiwan.  
E-mail: dah1003@yahoo.com.tw  
Accepted: January 30, 2008

tumor cells due to lymphatic obstruction was suggested by Malfetano [4]. Imachi and coworkers reported that most tumor cells can also be found in dilated lymphatics of skin lesions [5]. These and other reports of cervical cancer recurrence at drainage sites have involved midline incision scars [6]. In our case, recurrence in the superficial fascia at the lateral margin of the rectus abdominis muscle was noted. The lymphatic drainage of this site was via the inferior epigastric chain. This drainage might have been obliterated following pelvic lymph node dissection.

The possibility of direct tumor seeding during the operation cannot be ruled out. Direct spread to an incision has an uncommon recurrence at laparoscopic port sites [7,8]. Interestingly, recurrence at a cesarean section scar made prior to a diagnosis of cervical cancer 24 years later has been reported [2]. Owing to the lack of lymphatic drainage in this area, the probability of hematogenous spread of cervical cancer is also possible. In our case, the surgical scar for the radical hysterectomy was made using a Pfannenstiel incision. This incision supposedly provides a smaller surgical field compared with a midline longitudinal incision, which may require more vigorous traction of the abdominal wall intraoperatively. While the cause of the scar recurrence in this case remains unclear, direct tumor seeding via vigorous manipulation and traction of the smaller operative field is certainly a possibility.

Because of the rarity of incisional cancer recurrence [9,10], optimal management of this condition is still unclear. Treatment should be individualized based on the extent of the disease. For distant metastasis such as to the liver, lung, bone and abdominal lymph nodes, there is currently no curative treatment. Localized recurrent disease with no other metastatic sites has been treated with surgery, and radiotherapy alone or in combination with chemotherapy. Cisplatin with 5-fluorouracil and doxorubicin (Adriamycin; Pharmacia & Upjohn, MI, USA) in addition to radiotherapy was used to treat a patient with episiotomy scar recurrence [10]. Chemotherapy with paclitaxel, ifosfamide and cisplatin was

well tolerated in one study [2]. In that case, surgery was the mainstay of the treatment, followed by concurrent chemoradiation with weekly cisplatin treatment.

The prognosis of cervical cancer patients with surgical scar metastasis is generally poor, with the length of survival ranging from 1 to 37 months (mean, 8.5 months) [5]. A better prognosis, however, has been reported in a patient with episiotomy scar metastasis [10]. Therefore, in the absence of recurrence in deeper tissues or distant metastasis, as was the case in our patient, a longer patient survival in the presence of such superficial scar recurrence may be anticipated [5].

## References

1. Greenlee RM, Chervenak FA, Tovell HM. Incisional recurrence of a cervical carcinoma. Report of a case. *JAMA* 1981;246:69-70.
2. Pradhan S, Asthana AK, Sharan GK, Kumar M, Sharma OP. Recurrence of carcinoma cervix in the scar of previous cesarean section: a case report. *Int J Gynecol Cancer* 2006;16:900-4.
3. Wahlqvist L. Resection of the abdominal wall in metastasis from cancer of the bladder, kidney or colon. *Eur Urol* 1977;3:26-8.
4. Malfetano JH. Skin metastases from cervical cancer: a fatal event. *Gynecol Oncol* 1986;24:177-82.
5. Imachi M, Tsukamoto N, Kinoshita S, Nakano H. Skin metastasis from carcinoma of the uterine cervix. *Gynecol Oncol* 1993;48:349-54.
6. Copas PR, Spann CO, Thoms WW, Horowitz IR. Squamous cell carcinoma of the cervix metastatic to a drain site. *Gynecol Oncol* 1995;56:102-4.
7. Naumann RW, Spencer S. An umbilical metastasis after laparoscopy for squamous cell carcinoma of the cervix. *Gynecol Oncol* 1997;64:507-9.
8. Childers JM, Aqua KA, Surwit EA, Hallum AV, Hatch KD. Abdominal-wall tumor implantation after laparoscopy for malignant conditions. *Obstet Gynecol* 1994;84:765-9.
9. Sharma DN, Chawla S, Chander S, Gairola M, Thulkar S, Singh MK. Cervical carcinoma recurring in an abdominal wall incision. *Clin Oncol (R Coll Radiol)* 2000;12:354-6.
10. Khalil AM, Khatib RA, Mufarrij AA, Tawil AN, Issa PY. Squamous cell carcinoma of the cervix implanting in the episiotomy site. *Gynecol Oncol* 1993;51:408-10.