



## CASE REPORT

# Scar Site Metastasis in Cervical Carcinoma - A Case Report and Review of Literature

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## Abstract

Metastasis to the skin occurs rarely in gynaecologic cancer, especially in cervical carcinoma. Although carcinoma of cervix is the second to fourth most common malignancy in women, cutaneous involvement originating from cervical cancer is particularly unusual, even in terminal stage of the disease. We report a case of carcinoma cervix stage Ib treated with radical surgery. Patient was advised postoperative radiotherapy but did not receive due to some problem. Two and half months after surgery patient developed recurrence on the left side of abdominal scar. Patient received 6 cycles of chemotherapy. 3 months later patient came back due to complications of advanced disease and died in hospital. In conclusion incisional cutaneous metastasis is a rarity with carcinoma cervix and is considered as an ominous prognostic sign with short survival after diagnosis.

## Key Words

Carcinoma Cervix, Metastasis, Radical Hysterectomy

## Introduction

Squamous cell carcinoma of cervix frequently metastasizes to pelvic lymphnodes. The greater the extent of primary tumor, the more likely is metastasis to pelvic lymphnodes. Distant metastasis is rare and usually observed in lung, liver and bone. Metastatic carcinoma to the skin is an uncommon occurrence, with incidence rate of 5% or less (1, 2). Incidence of incisional skin metastasis from carcinoma cervix is extremely rare ranges from 0.1-2% (3). Carlson *et al* (4) reported occurrence of metastatic carcinoma to skin in 26 out of a study group of 2220 patients. They noted that with modern radiotherapy cancer control in the pelvis is improved, and distant metastasis would become more clinically evident.

## Case Report

Patient X age 52 year was diagnosed as a case of carcinoma cervix stage Ib. After routine investigations patient underwent Wertheim's hysterectomy with bilateral pelvic lymphadenectomy in may 2011. Histopathology report revealed poorly differentiated squamous cell carcinoma, 4 out of 23 pelvic nodes dissected revealed metastasis. With this information, radiotherapy was recommended but patient did not receive due to some

problem. Two and a half months after surgery she presented with complain of subcutaneous nodular mass in left angle of lower abdominal scar (*Fig 1*). Overlying skin was intact and on examination 3 x 3 cm nodules was palpated. FNAC from mass demonstrated metastatic squamous cell carcinoma (*Fig 2*). It was suggested that she be admitted for excision but refused and her next visit was in November 2011. At that time nodular lesion converted to 4 x 5 cm ulceroproliferative growth. Computed tomography revealed 5 x 5 cm mass in anterior abdominal wall extending in to abdominal cavity with metastatic lesions in liver. In view of disseminated disease patient was given combination chemotherapy with cisplatin (50 mg / m<sup>2</sup> on day one) and 5 fluorouracil (1 gm / m<sup>2</sup> per day x 4, 24 hour infusion). She received 6 cycles but died 3 months later.

## Discussion

Although incisional recurrences has been documented in the form of anecdotal reports in the literature, it has never found a place in the list of recognized surgical complications. Owing to rarity of such cases there have been no large series reported in literature. To our knowledge till date 22 cases of scar site metastasis in It

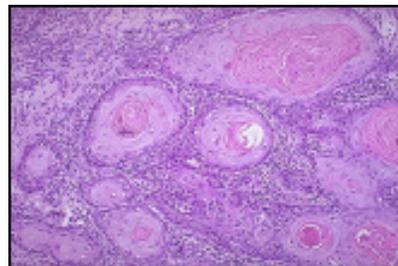
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**Fig.1 Microphotograph Shows Spindle Cell Fibroblasts and Regenerating Muscle Fibres( Pap20 X)**

carcinoma cervix have been reported. Details of these cases have been given in *table 1*. Most of the recurrences developed in less than a year. In our cases this interval was very short of 2 ½ months only.

Metastatic carcinoma in abdominal wall incision has been frequently reported in cancers of colon, kidney, and bladder (3). Imachi *et al* suggested that the incidence of skin metastasis may vary depending on the cell type. Incidence was 0.9% in patients with squamous cell carcinoma, 5.8% with adenocarcinoma and 20% in undifferentiated carcinoma. The incidence is also influenced by the presenting stage of the disease. The higher the stage of disease, the greater the rate of skin metastasis (2). Macroscopically 3 common patterns of skin metastasis such as nodules, plaques and inflammatory telangiectatic lesions have been recognized (5). In our case metastatic lesion developed as nodule 1st and later turned into an ulceroproliferative lesion. There are two possible mechanism that could explain the development of metastatic recurrence in a surgical wound. First, it is possible for direct tumor seeding to occur at the time of surgery. Secondly, circulating tumor cells may become trapped by fibrin platelet deposits in the microcirculation of the wound. The mechanism of such entrapment of tumour cells has been reviewed by Sugarbaker *et al* (6) and it has been demonstrated in experimental system (7). According to Reingold *et al* there is a possibility of another mechanism which says when cervical carcinomas metastasizes to skin it generally follows a locoregional pattern (abdominal wall, vulva and upper lower extremity) suggesting that usual mode of spread is through local dermal lymphatics. This is inconsistent with other carcinomas, in that metastatic spread to the skin is commonly located near the site of primary tumour (8). Lowered immune status during pregnancy may also play role in allowing such tumor implantation because several



**Fig.2 FNAC From Mass Demonstrated Metastatic Squamous Cell Carcinoma**

authors have reported episiotomy scar recurrences from cervical carcinoma (9-14). Copas *et al* (15) and Behtash *et al* (16) reported cases of carcinoma cervix where retroperitoneal drain was placed through separate incision after radical hysterectomy and patient developed drain site metastasis later on. Laparoscopic procedures are used infrequently in cervical carcinoma. Port site metastasis after laparoscopic lymphadenectomy is a new phenomenon. To our knowledge 21 cases of port site metastasis in carcinoma cervix have been reported in literature which is not included in our study. Picone published a unique case of case of trocar site metastasis in adenocarcinoma cervix stage II b. Laparoscopic ovarian transposition was done prior to radiotherapy and surgery, 5 months later patient developed trocar site metastasis (17).

Prognosis associated with cutaneous metastasis of cervical carcinoma is poor. The mean survival of patients with this is 3 months (1, 18). In our case, patient died 3 months after treatment. No strict guidelines regarding treatment are available in literature owing to scanty number of cases reported. The management of these patients depends largely upon disease extent. Distant metastasis in organs such as lung, liver and bone render these patients unsuitable for curative treatment. Biopsy is necessary to prove the origin of the metastasis. Careful and close followup including examination and imaging with special attention to incisional, port, or drain sites is proposed to early identify such a recurrence. Treatment of such recurrences remains palliative and includes chemotherapy, radiotherapy, or wide surgical excision. For example, reconstruction of the abdominal wall with a latissimus dorsi musculocutaneous flap as well as mesh use are proposed in the literature (19). Platin-based chemotherapy is usually recommended, while schemes with fluorouracil or topotecan have also been used. Although treatment should be individualized, it seems that wide excision in combination with chemotherapy could be the best treatment option.

**Table 1. Abdominal Metastasis After Surgery for Cervical Carcinoma**

Author/year/age of patient	Histological type	Stage	Type of operation	Postoperative radiotherapy	Site of metastasis	Time of recurrence	Treatment
Neven et al. [19]/1993/49 y.o	Squamous	IB	Radical hysterectomy	Yes	Abdominal wall	24 months	Wide excision
Copas et al. [15]/1995/46 y.o.	Squamous	IIA	Retroperitoneal lymphadenectomy	Yes	Drain site	7 months	Wide excision, radiotherapy
Behtash et al. [16]/2002/44 y.o	Squamous	IIA	Radical hysterectomy	Yes	Drain	9 months	Chemotherapy, radiotherapy
Liro et al. [21]/2002	Squamous	IIA	Radical hysterectomy	Yes	Abdominal wall	6 months	Excision, chemotherapy
Srivastava et al. [22]/2005/35 y.o	Squamous	IIA	Radical hysterectomy	Yes	Incisional site	3.5 years	Wide excision, chemotherapy
Iavazzo et al. [23]/2008/24 y.o	Squamous	IIA	Radical hysterectomy	Yes	Drain	14 months	Excision, radiotherapy
Ding et al. [24]/2008/45 y.o.	Squamous	IB	Radical hysterectomy	No	Incisional	2.5 years	Wide excision, chemotherapy, radiotherapy
Kim et al. [25]/2008/64 y.o	Squamous	IB2	Radical hysterectomy	Yes	Abdominal wall	6 months	Chemotherapy, radiotherapy
van den Tillaart et al. [26]/2010/63 y.o.	Squamous	IIA	Radical hysterectomy	Yes	Abdominal	27 months	Wide excision
van den Tillaart et al. [26]/2010/29 y.o.	Squamous	IIB	Radical hysterectomy	Yes	Abdominal	2 months	Wide excision
van den Tillaart et al. [26]/2010/34 y.o.	Squamous	IIB	Radical hysterectomy	Yes	Abdominal	4 months	Wide excision
van den Tillaart et al. [26]/2010/35 y.o.	Squamous	IB2	Radical hysterectomy	Yes	Abdominal	21 months	Wide excision
van den Tillaart et al. [26]/2010/35 y.o.	Squamous	IB1	Radical hysterectomy	No	Abdominal	11 months	Wide excision, radiotherapy
van den Tillaart et al. [26]/2010/61 y.o.	Adenocarcinoma	IB1	Radical hysterectomy	No	Abdominal	45 months	Wide excision
van den Tillaart et al. [26]/2010/65 y.o.	Squamous	IB1	Radical hysterectomy	Yes	Abdominal	10 months	Chemotherapy
van den Tillaart et al. [26]/2010/41 y.o.	Squamous	IB2	Radical hysterectomy	Yes	Abdominal	14 months	Chemotherapy
van den Tillaart et al. [26]/2010/44 y.o.	Squamous	IB2	Radical hysterectomy	No	Abdominal	6 months	Wide excision, radiotherapy
van den Tillaart et al. [26]/2010/32 y.o.	Adenocarcinoma	IB2	Radical hysterectomy	No	Abdominal	33 months	Wide excision
van den Tillaart et al. [26]/2010/26 y.o.	Squamous	IB1	Radical hysterectomy	Yes	Abdominal	5 months	Wide excision, radiotherapy
RSCH/2012/46 y.o.	Adenocarcinoma	IB1	Radical hysterectomy	No	Incisional	3 years	Chemotherapy, wide excision
Iavazzo et al. [27]/2012/46 y.o.	Adenocarcinoma	IB1	Radical Hysterectomy	No	Abdominal wall	3 years	Chemotherapy

is difficult to clarify the prognosis of such a recurrence as patients could die because of their extensive disease. Ramirez *et al.* showed that in a median follow-up period of 12 months, 63% of patients died of disease (20). Abdominal metastasis after radical surgery for squamous cervical carcinoma is a rare entity; however followup and treatment should be further clarified. A multicenter analysis is proposed in order to clarify the presentation and management of such entities. In conclusion incisional cutaneous metastasis is a rarity with carcinoma cervix and is considered as an ominous prognostic sign with short survival after diagnosis.

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