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Case Report

ABDOMINAL WALL SCAR RECURRENCE OF CARCINOMA CERVIX – A RARE ENTITY

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ABSTRACT

Metastatic carcinoma in an abdominal wall incision from internal malignant neoplasm is an uncommon and often a preterminal event. Most commonil metastatic skin incisional cancers have been reported with cancers of colon, kidney and bladder. However, cancer recurrence in the surgical incision is not new gynecology and is not limited to laproscopy. How neoplastic cells implant and grow in an abdominal scar without other concomitant metastases is very much intriguing. We report hereby isolated but bilateral scar recurrence on either end of the pfannensteil scar in a case of carcinoma cervix one year after radical hysterectomy and external beam radiotherapy. A review of related literature and the possible mechanisms of recurrence in laparotomy wounds are discussed.

Key Words: Metastatic Carcinoma; Laproscopy; Colon Cancers

INTRODUCTION

In cervical cancer, the gynecologic literature describes subcutaneous tumor implantation in abdominal incisions, pelvic drains sites and episiotomy scars. Subcutaneous implantation appears to occur in the setting of synchronous advanced intraabdominal or pelvic metastasis and carcinomatosis, usually as part of overall progression of disease. The risk of an "isolated" subcutaneous tumor implantation appears to be even lower. The rarity of occurrence, the floridity of presentation and the feasibility of prevention warrant reporting such a case.

CASES

A 40 year old female had underwent radical hysterectomy for carcinoma cervix about one year back in the department of surgical oncology. The post operative histopathological evaluation revealed Grade II seqamous cell carcinoma of the cervix. She had then underwent a full course of external beam radiotherapy. One year hence she presented to the general surgical out patients department with bilateral symmetrical ulcerated swellings on either end of the Pfannansteil scar (Figure 1) both of which had been present since one month with progressive increase in size, subsequent ulceration and bleeding. Clinically there was no evidence of local recurrence or distant metastasis.

Ultrasonogram of the abdomen revealed two hyperechoic lesions in the subcutaneous plane of the right & left iliac fossae. A pre-operative edge-wedge biopsy of the lesion was found to be consistent with non keratinizing carcinomatous desposits (Grade 4 squamous cell carcinoma). Wide excision of the tumour deposits done followed by split skin grafting. The post-operative histopathological evaluation of the specimen revealed undifferentiated carcinoma (Figure 2). Within a month of surgery she presented with extensive recurrent deposits in the anterior abdominal wall and finally was lost to follow-up.

DISCUSSION

The incidence of skin metastasis from a treated cervical cancer is through to be about 0.8%. The survey of the literature revealed a total of 31 cases of recurrence of carcinoma cervix in a surgical scar. Several investigators have contributed to the understanding of subcutaneous implantation and have suggested

means to reduce its occurrence. Local recurrences can either develop at the site of the primary surgery/surgical scar (scar recurrences)or at some distance from this location in the residual organ that remained in situ after resection (in situ recurrences;). The migration of tumor cells detached from the primary neoplasm to or close to the local surgical wound created during the process of tumor resection, a re-entry of circulating tumor (stem) cells into the compartment favoured by wound associated activated blood vessels, lymphatic and hematogenous tumor cell dissemination as well as contamination all contribute to the interaction of minimal residual disease with the surgical wound (Hockel *et al.,* 2005) .

Figure 1: Bilateral symmetrical ulcerated swellings on either end of the Pfannansteil scar

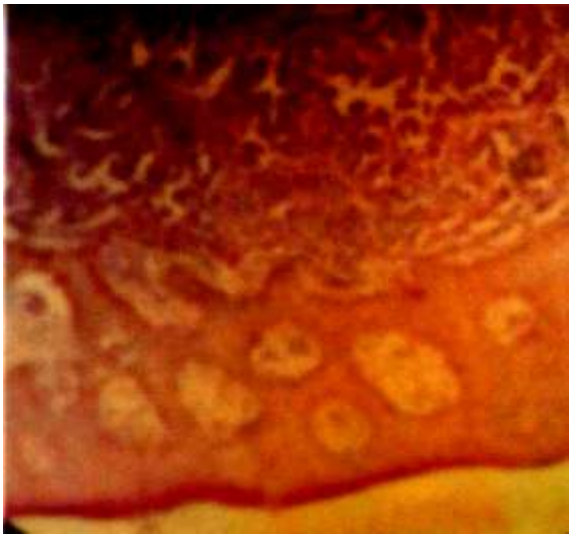

Figure 2: Post-operative histopathological evaluation of the specimen revealing undifferentiated carcinoma

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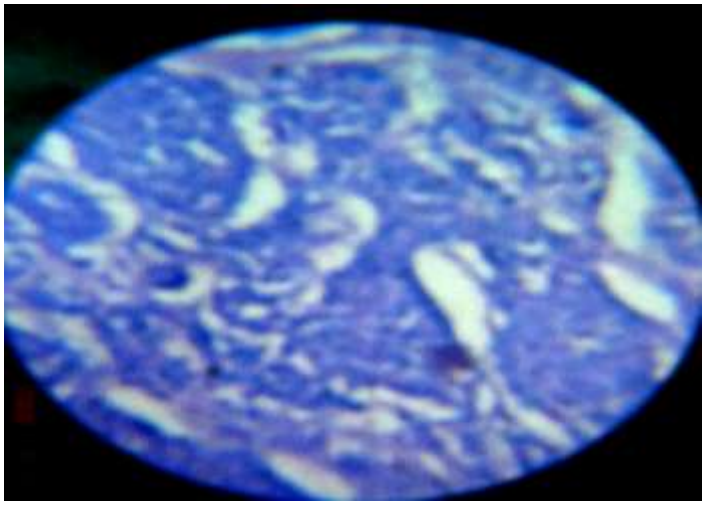

Figure 3: Histological image

Depending on the different phase of the healing process cancer cells may be recruited, replicated, and selected at he site of the surgical wound. Furthermore, the immune status of the host was also advocated as one of the factors associated with the viability of the implanted tumor cells. Others have suggested that abdominal incisions receive no more than one quarter of the prescribed pelvic radiation dose, although radiation portals amy include the abdominal incision and therefore incisional recurrences (Khalil *et al.*, 1998).

According to Imachi *et al.*, (1993), the incidence of skin metastasis is usually higher in patients with adenocarcinoma and differentiated carcinoma than in patients with squamous cell carcinoma (Brownstein and Helwig, 1972). However, a survey of the literature by Sharma el al identified 12 reported cases to date (eight squamous cell carcinoma and four adenocarcinoma)6. The incidence of skin metastasis of 0.8% in stage I,1.2% in stage II,1.2% in stage III, and 4.8% in stage IV of carcinoma cervix (Imachi *et al.*, 1993). The interval between the diagnoses of cervical cancer and skin metastasis ranges from 0 to 69 months, with a mean of 16.9 months. Macroscopically, three common patterns (nodules, plaques, inflammatory telangectatic lesion) of skin metastasis have been documented (Brownstein and Helwig, 1972).

There are no clear-cut guidelines regarding the management & in most of the cases, the treatment is individualized depending on the extent of disease. Spread of disease to distant sites, such as lung, liver, abdominal lymph nodes, and peritoneum, precludes any curative treatment. Women with only localized disease at the scar and no other metastatic sites have been treated with surgery, radiotherapy, or a combination of both of these modalities (Sharma *et al.*, 2000). Cisplatin + 5-fluorouracil+adriamycin in addition to radiotherapy has been effective in a patient with recurrence at the episiotomy scar[4]. Patients of carcinoma cervix with cutaneous metastasis and scar recurrence usually have a poor prognosis with a mean duration of survival of survival of 8.5 months (Imachi *et al.*, 1993).

Conclusion

Despite its poor prognosis, it is important when a patient presents with metastases to the skin, to establish the primary source, the extent of the metastatic lesions and devise treatment programs that are appropriate to the pattern of the metastasis and the primary diagnosis. The intent of treatment in advanced recurrent disease is palliation by surgery, chemotherapy, radiation therapy alone and/or in combination.

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