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Clear Cell Carcinoma Arising in a Cesarean Section Scar Endometriosis : A Case Report

Endometriosis of a surgical scar is rare and occurs mainly when a hysterectomy or Cesarean section was performed. We describe a 54-year-old woman with a large suprapubic mass as a definite case of a endomerioid carcinoma developing within the scar endometriosis following Cesarean section. Scar endometriosis, as well as endometriosis at other sites, can turn malignant. Endometrioid carcinoma is the most common histological pattern of malignant tumor arising in endometriosis. But clear cell carcinoma is very unusual. A case of primary clear cell carcinoma in endometriosis of a Cesarean section scar is described. To the best of our knowledge, this is the first documented case of endomerioid carcinoma developing within the scar endometriosis in Korea.

Key Words : *Adenocercinoma, clear cell; Carcinoma, endometrioid; Endometriosis; Cesarean section; Cicatrix*

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INTRODUCTION

Endometriosis of a surgical scar is a well-established entity (1). It is usually a result of previous hysterectomy or Cesarean section (1, 2), although the cases have been reported following appendectomy and repair of inguinal hernias (3).

Malignancy developing from endometriosis in extraovarian lesion is rare and endometrioid carcinoma is the most common histology. We report a case of clear cell carcinoma developing within the scar endometriosis following a Cesarean section.

CASE REPORT

A 54-year-old woman, complaining of a large suprapubic mass, was referred to Seoul National University Hospital. The patient stated that the mass had been slowly enlarging for approximately three months. No specific gynecological symptoms were present.

She had experienced two pregnancies. Both had been terminated by Cesarean sections 24 and 26 years ago. The postoperative periods had been uneventful. Physical examination revealed a 5 ×5 cm, firm subcutaneous mass, closely relating to the healed midline suprapubic scar. Pelvic organs were free on examination. Routine hemogram, urinalysis, liver function tests and chest radiograph were normal. A CT of the abdomen showed a subcutaneous mass between the rectus abdominis muscle and overlying skin (Fig. 1). A wide local excision was performed. A light microscopic examination revealed clear cell carcinoma with a focus of endometriosis

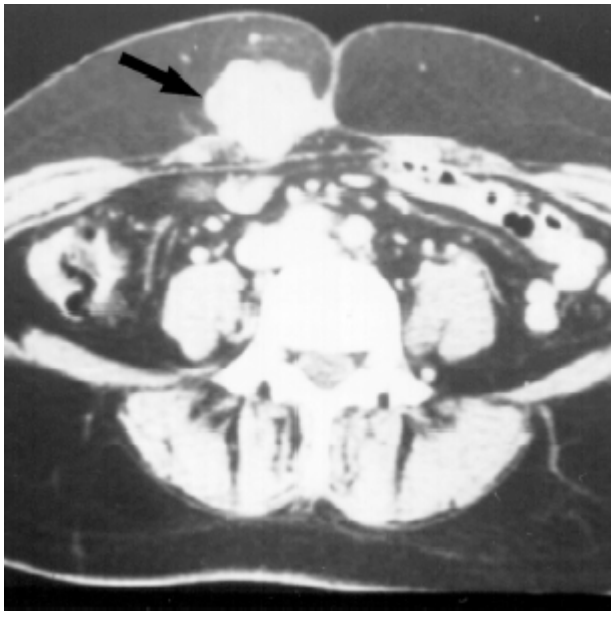

Fig. 1. CT scan of the abdomen showing a subcutaneous mass crossing the rectus abdominis (arrow).

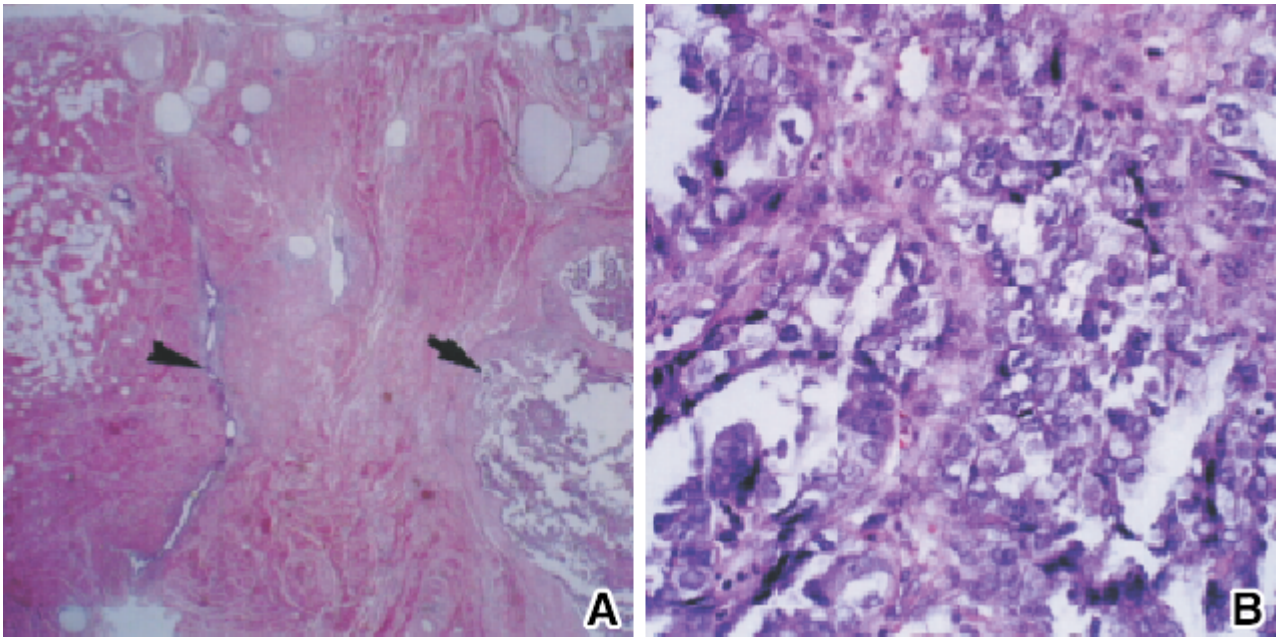

Fig. 2. A: Histology section showing a portion of clear cell carcinoma (arrow) with scattered foci of endometriosis (arrow head) on the other slide (H-E, ×10). B: High-power view showing a high number of mitotic figure (H-E, ×300).

suggesting that carcinoma developed in the scar endometriosis (Fig. 2). The patient received post-operative electron beam radiotherapy of 50.4 Gy over 6 weeks.

DISCUSSION

In 1925, Sampson first reported a malignant change of ectopic endometrial tissue in the ovary (4). Sampson's criteria for malignancy arising in endometriosis are as follows: first, the endometriosis is intimately associated with neoplasm; second, no other site of the same malignancy can be found; and finally, the histological appearance suggests endometriosis.

In addition to malignant transformation of endometriosis of ovary, a few cases of malignancy from extraovarian endometriosis have been reported, in the rectovaginal septum (5), vagina (6), colon (7), rectum (8), urinary bladder (9) and scar endometriosis (10, 11). The frequency in a given site parallels the frequency of endometriosis in those locations (12).

The incidence of scar endometriosis as well as the incidence of cancer developing from it is higher after abdominal-uterine operations, especially Cesarean section, than after other abdominal-pelvic operations (13).

The etiology of the development of carcinoma in the endometriosis is unknown. Endogenous or exogenous estrogen may play a role in the malignant transformation of endometriosis (7). Several endometriosis-related neoplasms have been reported in patients who had received prior radiation treatment for endometriosis of the ovaries, raising the possibility of radiation-induced neoplasms in these patients (12).

Endometrioid carcinoma is the most common histological pattern of malignant alteration founds followed by clear cell carcinoma. The proportion of clear cell carcinoma seems to be different according to the sites. Endometrioid carcinoma is at best two to three times as common as clear cell carcinoma in the ovary (14). This is a sharp contrast to the 19 times difference noted in extraovarian endometriosis (15) and the 16-18 times noted in the endometrium (16). In fact, the relatively high rate of association of ovarian clear cell carcinoma with endometriosis is an argument used in favor of Mullerian origin (17).

We performed post-operative radiotherapy after wide local excision because of the possibility of residual microscopic disease. But the role of adjuvant therapy after complete excision is not clear.

There are debates about the prognosis of clear cell carcinoma. Endometrioid carcinoma and clear cell carcinoma of the ovary were reported to have a similar prognosis by some authors (18), while others reported a poor prognosis for clear cell carcinoma (19).

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