

Cutaneous Metastasis of Uterine Papillary Serous Carcinoma Presenting as a Solitary Nodule on the Umbilical Area

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Sir,

Uterine papillary serous carcinoma (UPSC) was established as a distinct type of endometrial carcinoma by Lauchlan (1) in 1981 and Hendrickson et al. (2) in 1982. UPSC currently constitutes 4% of all endometrial carcinomas and histologically resembles papillary serous adenocarcinoma of the ovary (3). We describe here a case of cutaneous metastasis of UPSC, presenting clinically as a solitary nodule on the umbilical area.

CASE REPORT

A 49-year-old woman was referred to our hospital with suspected uterine cancer in September 2006. In October 2006 she underwent total abdominal hysterectomy (TAH), bilateral salpingo-oophorectomy, total omentectomy, and peritoneal exploration with biopsies. The pathological findings revealed UPSC with myometrial, left ovarian, lymphatic, and peritoneal spread. Eight cycles of adjuvant chemotherapy with cisplatin and paclitaxel were administered from November 2006 to June 2007. In July 2007, after completion of chemotherapy, abdomino-pelvic computerized tomography (APCT) did not show any local tumour recurrence or distant metastases. However, in January 2008, right pleural metastatic lesions were found on APCT, and chemotherapy based on carboplatin, cyclophosphamide, and doxorubicin was recommenced.

In February 2008, the patient presented to the clinic with a hard, flesh-coloured, dome-shaped, nodule on the umbilical area, of 3 weeks duration (Fig. 1a). APCT showed an umbilical subcutaneous nodule (Fig. 1b).

A biopsy showed an infiltrating tumour of glandular structure with atypical epithelial linings (Fig. 2). Coarse stromal cores were layered with complex stratified epithelium to produce a papillary pattern. Atypical epithelial cells were cuboidal-to-ovoid in shape with prominent nucleoli and abundant cytoplasm. In some areas, neoplastic cells were stratified in small epithelial tufts over fibrous stalks. Tumour cells were negative for carcinoembryonic antigen (CEA) and anti-thyroglobulin antibodies, by immunohistochemistry. The histopathological findings were identical to those of the primary uterine lesion. After diagnosis of cutaneous UPSC metastasis, the patient continued chemotherapy based on carboplatin, cyclophosphamide, and doxorubicin for control of metastases to the skin and pleura, and has remained alive during 13 months of follow-up. The skin lesion did not increase in size, and no new lesions were noted during this period.

DISCUSSION

UPSC has a higher recurrence risk than endometrioid adenocarcinoma of the endometrium, and is typically associated with a worse prognosis (4). Spread to the upper abdomen, and deep myometrial invasion with lymph vascular space involvement, are common. UPSC usually metastasizes to pelvic adnexa and the retroperitoneal lymph nodes (5). To date, only two cases of cutaneous UPSC metastases have been reported (6, 7). Morphologically, metastatic skin lesions present as multiple nodules on the pubic area (7) or as a subcutaneous infiltrative lesion of the abdominal wall,

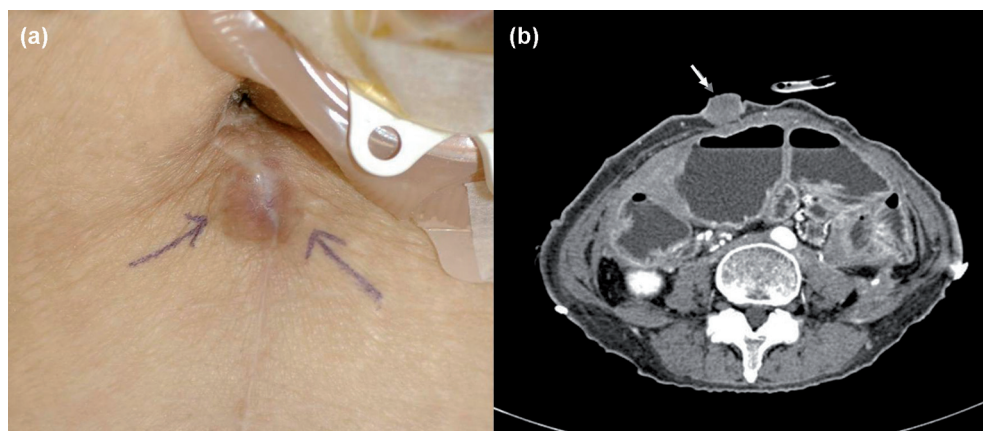


Fig. 1. (a) A solitary, 1.5 cm-sized, indurated, dome-shaped nodule on the umbilical area, close to the ostomy site. (b) Computerized tomography shows the umbilical subcutaneous nodule (arrow).

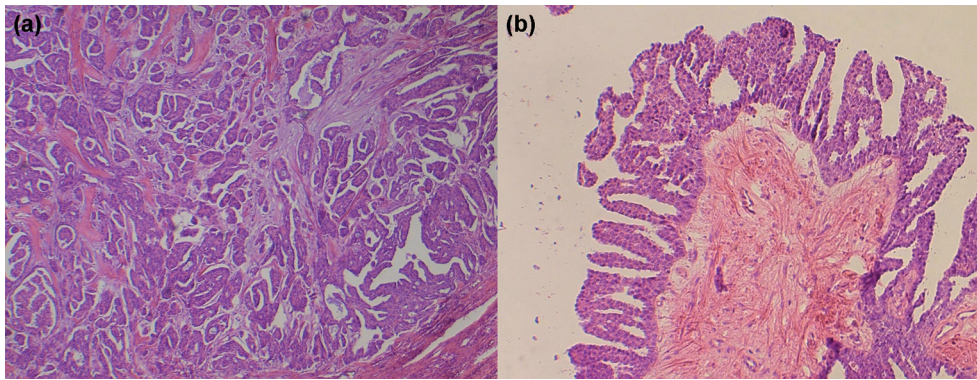


Fig. 2. (a) A nodule biopsy reveals a dermal tumour composed of neoplastic cells forming papillary glandular structures (haematoxylin-eosin (H&E) $\times 40$). (b) The papillary glandular structures are lined by tufted stratified atypical epithelial cells (H&E $\times 100$).

with a nodular lesion on the vulva (6). Our case is the first instance of UPSC cutaneous metastasis showing a solitary nodule on the umbilical area.

Metastatic tumour on the umbilical area has been described extensively in the literature. The specific site of the primary tumour is unknown in approximately 29% of metastatic tumours presenting as this nodule (8). Common sites of origin include the stomach, ovary, colorectal region, and pancreas (9). The pathogenesis of spread to the umbilical region has been hypothesized to be contiguous, haematogenous, or lymphatic (10). UPSC may be associated with umbilical metastatic lesions, because UPSC commonly invades the lymphovascular space. Additionally, one cannot eliminate the possibility of neoplastic implantation intra-operatively. Although the fact that the nodule in our patient was located on the upper border of the incisional scar resulting from TAH favours neoplastic implantation, the interval of 15 months from operation to skin change argues against this possibility. The presence of metastatic lesions on the skin is indicative of advanced cancer with poor prognosis. Our patient developed a metastatic tumour on the umbilical area at an advanced cancer stage, featuring metastases to the pleura, but she is alive 13 months after diagnosis of cutaneous metastasis. This is unusual, in comparison with outcomes of cutaneous metastasis UPSC patients described in previous reports, who died of disseminated disease 5 and 9 months after appearance of skin lesions (6, 7).

UPSC is histologically characterized by a complex papillary architecture with tufted epithelial stratification, formation of cellular buds, and marked cellular atypia (4). In non-papillary areas, tumours showed predominantly glandular growth patterns; elongated and slit-like spaces were typically present (4). When papillary architecture with cellular atypia is noted in a skin specimen, primary skin tumours, such as aggressive digital papillary adenocarcinoma, hidradenocarcinoma papilliferum, syringocystadenocarcinoma papilliferum, malignant

endothelial papillary angioendothelioma, and metastatic carcinoma from several sites, should be considered (7). In our patient, lack of reaction to CEA and anti-thyroglobulin antibodies argued against the possibility of metastases from the breast and thyroid, respectively.

In conclusion, this is the first report of a case of UPSC cutaneous metastasis presenting as a solitary nodule on the umbilical area.

The authors declare no conflict of interest.

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