A case of vulvar metastasis from rectal cancer - regional resection of the right vulva labium and vulvar reconstruction with a rhomboid transposition flap: Case report

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Summary

A 72-year-old woman visited our hospital to clarify the etiology of pain, swelling and ulceration of the right large vulva labium. Rectal cancer and pulmonary metastatic tumor were detected, and the rectal cancer was resected. Biopsy from the right vulva labium revealed that the vulvar tumor was a metastatic cancer originating from rectal cancer. Our patient underwent regional resection of the right vulva labium and the area lacking tissue was covered by a rhomboid transposition flap. Our patient experienced necrosis of the tip of the flap and the wound was healed by secondary intention.

Key words: Vulvar metastasis: rectal cancer; Vulvar reconstruction.

Case Report

A 72-year-old woman presented with pain, swelling and ulceration of the right large vulva labium. Her past medical history was notable for hypertension, glaucedo and pulmonary metastatic disease, which was treated with chemotherapeutics. Her past surgical history included: omphalocele reconstruction, appendectomy and about six months before abdominal-perineal amputation with definitive colostomy for rectal carcinoma. Her past gynecologic history was notable for three parturitions and total hysterectomy.

Clinical examination revealed large ulcerations on the swollen right labium. These ulcerations were resected. The wound was closed with interrupted 2/0 monocryl sutures.

Biopsies were taken and resections of the tumors were performed. The tumor was composed of uniform small cells with a high nucleocytoplasmic ratio, very little cytoplasm and void of hyperchromatic nuclei. They showed a diffuse growth pattern with no morphologic evidence of squamous differentiation or glandular differentiation. There was extensive necrosis, diffuse infiltration of the dermis and subcutaneous tissue, extensive lymphatic infiltration, and absence of dermoplastic reaction. Immunohistochemical stains were performed for cytokeratins (AE1, AE3, cytokeratin 7, cytokeratin 20), protein S100, vimentin, synaptophysin and chromogratin. The tumor cells were positive only for AE1 and AE3.

Because of the severe topical symptoms and the major severity of the patient's metastatic disease a conservative operation was undertaken.

The patient was placed in the lithotomy position and the perineum and thighs were prepped to the knees. At the start of the flap reconstruction, the flap design was marked on the posterior medial thigh using a marking pen. The flap was a skin subcutaneous flap (Figure 1). The dimensions of the flap were determined by the surface area to be covered. The apex of the flap was at the junction of the middle and distal thirds of the thigh.

Under regional anaestesia a wide topical resection of the right vulva labium was bene. A rhomboid skin and subcutaneous fragment of 17 x 5 x 3.5 cm were resected. On the right posterior medial thigh, that was already marked, the skin and the subcutaneous tissue were incised and dissected sharply down to the fascia (Figure 2). The flap was then rotated to cover the perineal and area lacking vulvar tissue. The flap was sutured in two layers with interrupted 1-0 vicryl rapid sutures to approximate the subcutaneous tissue and 3-0 prolene for the skin. The wound on the posterior thigh was also closed in two layers (Figure 3). The donor site and the flap were drained using closed suction drainage.

Postoperatively the patient was kept in bed for 48 hours and received antibiotics. The subcutaneous heparin was continued until the patient was fully ambulatory. Wound cleansing was performed with a normal saline and povidone iodine solution. The flap was inspected daily for signs of ischemia. The third postoperative day the patient developed fever from 37.5°C to 38°C. The fifth postoperative day necrotic signs of the tip of the flap were obvious. The necrotic area was resected, healed by secondary treatment and required no further surgical intervention.

Discussion

The occurrence of cutaneous metastasis from rectal carcinoma is rare, with a reported frequency of less than 4%, most frequently affecting the skin of the abdominal, thoracic and pelvic regions [1-3]. Involvement of genital and perianal skin is uncommon [4-8]. Histologically, metastatic tumors are similar to primary tumors, but sometimes they have more anaplastic changes [9-11]. Typically skin involvement signifies generalized disease and a poor prognosis occurring within two years after diagnosis of the primary tumor [12, 13].

Our patient developed metastatic tumor of the vulva. This is a rare position of metastasis [14]. After tumor resection the patient underwent a flap reconstruction, because of a large lack of tissue. Although there was necrosis of the tip of the flap, we believe that this technique has no major postoperative complications and an acceptable cosmetic result.

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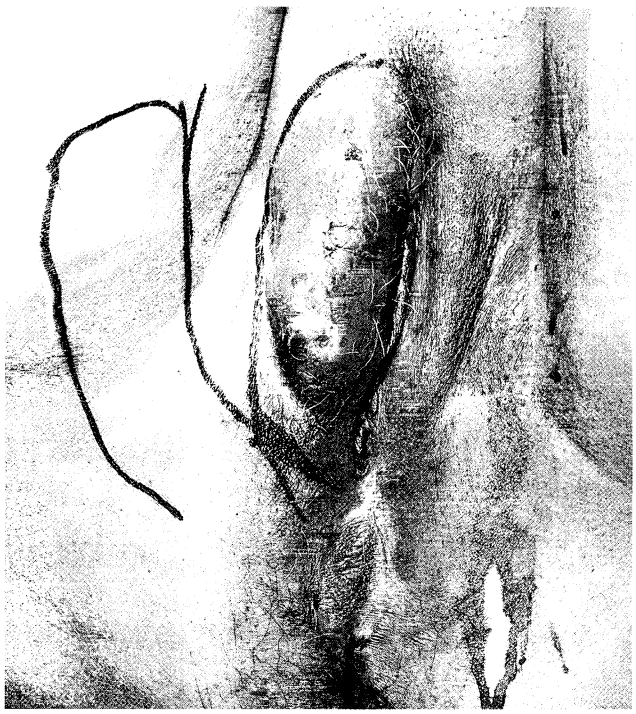

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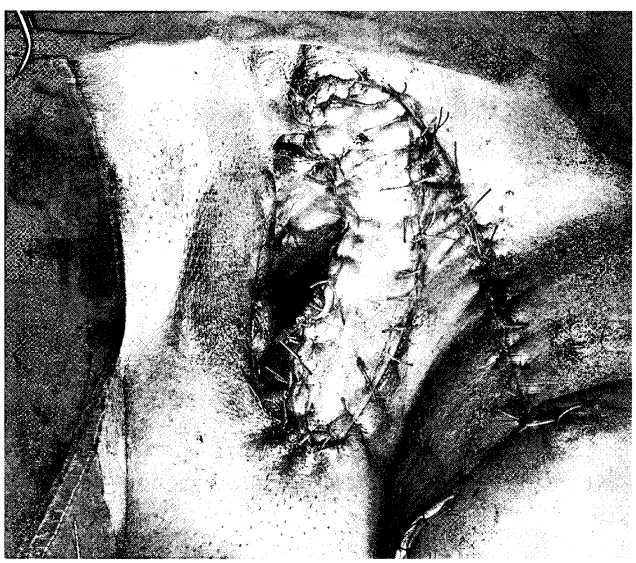

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