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Cutaneous metastasis of gastric signet ring cell carcinoma masquerading as allergic contact dermatitis

Editor

Skin metastases from gastric cancer are rare.[1] Among the histologic types of gastric carcinomas, signet ring cell carcinoma has a greater tendency for distant metastases than other types.[2] Cutaneous manifestation is variable, but usually occurs as non-specific nodules.[3] We report a patient with unusual cutaneous involvement from gastric signet ring cell carcinoma on the face, which resembled allergic contact dermatitis or photodermatoses.

A 60-year-old female patient presented with insidiously developed skin lesions of almost 3 months' duration. On clinical examination, she showed multiple, confluent, slightly pruritic, infiltrated, erythematous papules and plaques on her face (fig. 1). She had undergone a total gastrectomy and adjuvant chemotherapy for linitis plastica carcinoma of the stomach 15 months previously. Because she had dyed her hair 3 months ago and the lesions showed with photodistribution, she had been treated as contact dermatitis or photodermatoses by unidentified topical and oral medications, without any improvement in other hospitals. A biopsy specimen demonstrated signet ring cells scattered in the dermis (fig. 2). Special stains showed atypical cells stained with periodic acid-Schiff/diastase, alcian blue and cytokeratin 7. S-100 protein, HMB-45 and leucocyte common antigen (LCA)

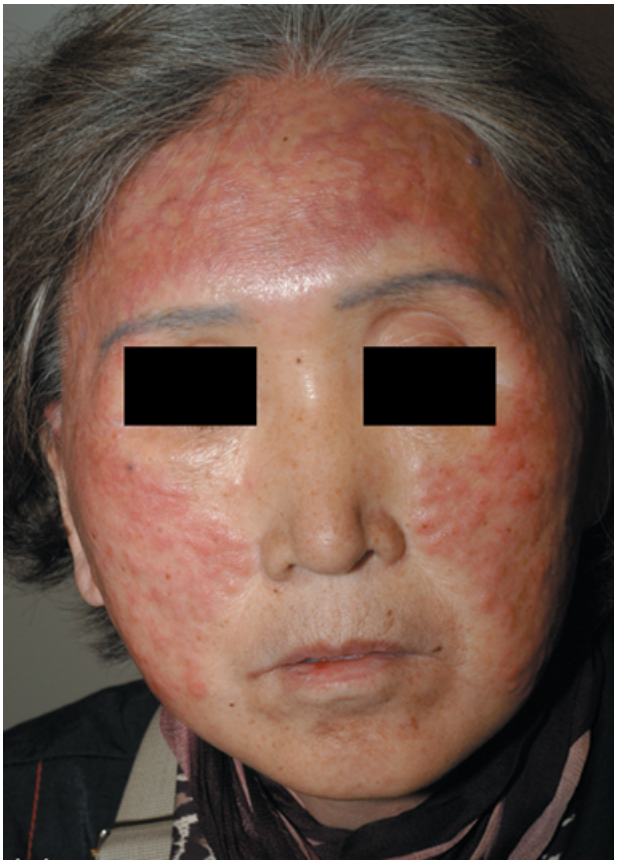

fig. 1 A 60-year-old female patient with erythematous infiltrated lesions on the face.

were negative. Immunohistochemical studies from the primary tumour specimens were identical. A diagnosis of cutaneous metastasis from a signet ring cell carcinoma of the stomach was established. Although upper gastrointestinal endoscopic biopsy from the site of stomach anastomoses demonstrated local recurrence, abdominal computed tomography (CT), chest radiography, brain magnetic resonance imaging (MRI) and cerebro-spinal fluid (CSF) analysis did not reveal any organ metastasis. The patient was given combination chemotherapy of cisplatin and capecitabine, and significant improvement was observed over the face after three courses. She tolerated the systemic chemotherapy well and she has been followed for 5 months.

The presence of signet ring cells in a skin biopsy has most commonly been associated with metastatic adenocarcinoma of the gastrointestinal tract.[4] These cells, however, have been also detected in other neoplasms such as basal cell carcinoma, squamous cell carcinoma, melanoma, non-Hodgkin's lymphoma and liposarcoma.[5] Several immunohistochemical studies such as cytokeratin, S-100 protein, HMB-45 and LCA may be useful to rule out the possibility

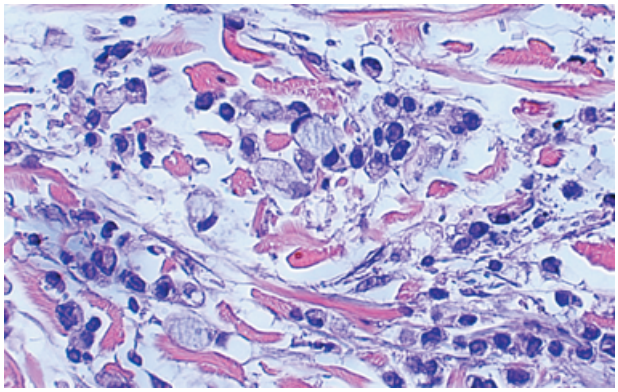

fig. 2 Scattered tumour cells with signet ring cell appearance in the dermis (haematoxylin and eosin, ×400).

of metastasis from epithelial, melanocytic and lymphoid tumour, respectively.[4] Although metastatic lesions sometimes reveal histologic features different from those of the primary lesion, in our patient, the immunohistochemical profiles and the clinical history of gastric cancer assisted in clarifying the diagnosis.

Cutaneous involvement by gastric carcinoma may show different clinical manifestations. Most cases present as firm, non-ulcerated nodules.[3] But they can infrequently manifest as erysipelas-like pattern,[3] scirrhous carcinoma,[6] zosteriform pattern or lesions resembling an epidermoid cyst.[3] In this case, the skin lesions looked like non-specific contact dermatitis or photodermatoses, which is extremely rare manifestation of cutaneous metastases. Clinicians should be aware of such unusual clinical manifestations of metastatic cancer, and diagnostic biopsy for any suspicious skin lesions should be performed, especially in patients who have a known internal cancer or do not respond to conventional treatments.

Soo-Jin Ahn, Sang-Hyun Oh, Sung-Eun Chang,*
Young Il Jeung, Mi-Woo Lee, Jee-Ho Choi,
Kee-Chan Moon, Jai-Kyoung Koh
*Department of Dermatology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, *Corresponding author, Department of Dermatology, Asan Medical Centre, College of Medicine, University of Ulsan, 388–1, Poongnap-dong, Songpa-gu, Seoul, 138–736, Korea, tel. +82 230103460; fax +82 24867831; E-mail: cse@amc.seoul.kr*

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Reduced growth of beard as the only diagnostic sign in a patient with macroprolactinoma

Editor

Disorders of skin or skin appendages are frequent indicators for internal diseases. However, cutaneous signs can vary from serious illness to minor cosmetic discomfort if symptoms and signs are slightly expressed or absent. In the latter case, diagnosis of the underlying disorder can be delayed for years.

A 27-year-old male patient presented complaining for reduced growth of beard since puberty. He denied any other sign or symptom. Clinical examination revealed nearly complete lacking of beard, breast and axillary hair. Female pattern pubic hair was present. Penis was normally developed. Height (176 cm) and body mass index (BMI = 20) were normal, despite the immature impression of body habitus. Gynecomastia or galactorrhea was absent. Palpation revealed soft testes with a volume of 12 mL each being in the lower normal range. Decreased libido and impotence have been initially denied, but later reluctantly admitted.

Laboratory investigations detected strongly decreased plasma testosterone levels [free testosterone 0.35 pg/mL (normal range 8.8–27); total testosterone 105 pg/mL (3500–10000)]. Luteinizing hormone (LH) was decreased [0.68 U/L (1.3–13)], follicle stimulating hormone (FSH) was at the lower normal range [1.6 mLU mL^{-1} (1.0–10.5)]. The prolactin plasma level was markedly increased being 100-fold above the normal range [2009 µg L^{-1} (2.1–18)]. Thyroidea stimulating hormone (TSH) was 4.92 mU L^{-1} (0.27–4.2), free thyroxine 6.0 pmol L^{-1} (13–23), ACTH 25 ng L^{-1} (9–52) and cortisol 27 nmol L^{-1} (200–690) (Tab).