of keloid-promoting factors, such as removal of the sinus tract and reduction of tension in the tissues. Additional factors including age, clinical subtype, accompanying keloid and size should be further evaluated for their effect on the recurrence rate of earlobe keloids.

REFERENCES

1. Baldwin H. Keloid management. In: Robinson JK, Hanke CW, Sengelmann RD, Siegel DM, editors. Surgery of the skin: procedural dermatology. Philadelphia: Elsevier Mosby, 2005:705-718.
2. Ogawa R, Miyashita T, Hyakusoku H, Akaishi S, Kuribayashi S, Tateno A. Postoperative radiation protocol for keloids and hypertrophic scars: statistical analysis of 370 sites followed for over 18 months. Ann Plast Surg 2007;59:688-691.
3. Narkwong L, Thirakhupt P. Postoperative radiotherapy with high dose rate iridium 192 mould for prevention of earlobe keloids. J Med Assoc Thai 2006;89:428-433.
4. Chen BP, Li YS, Zhao Y, Chen KD, Li S, Lao J, et al. DNA microarray analysis of gene expression in endothelial cells in response to 24-h shear stress. Physiol Genomics 2001;7:55-63.
5. Chiquet M. Regulation of extracellular matrix gene expression by mechanical stress. Matrix Biol 1999;18:417-426.
6. Lin K, Hsu PP, Chen BP, Yuan S, Usami S, Shyy JY, et al. Molecular mechanism of endothelial growth arrest by laminar shear stress. Proc Natl Acad Sci U S A 2000;97:9385-9389.
7. Meyer CJ, Alenghat FJ, Rim P, Fong JH, Fabry B, Ingber DE. Mechanical control of cyclic AMP signalling and gene transcription through integrins. Nat Cell Biol 2000;2:666-668.
8. Wang Z, Fong KD, Phan TT, Lim IJ, Longaker MT, Yang GP. Increased transcriptional response to mechanical strain in keloid fibroblasts due to increased focal adhesion complex formation. J Cell Physiol 2006;206:510-517.
9. Lim IJ, Phan TT, Song C, Tan WT, Longaker MT. Investigation of the influence of keloid-derived keratinocytes on fibroblast growth and proliferation in vitro. Plast Reconstr Surg 2001;107:797-808.
10. Butler PD, Longaker MT, Yang GP. Current progress in keloid research and treatment. J Am Coll Surg 2008;206:731-741.

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Carcinoma Erysipeloides from Adenocarcinoma of the Lung

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Dear Editor:

Lung cancer usually metastasizes the brain, bone, liver, adrenal gland, kidneys, and gastrointestitnal tract[1]. Lung cancer is the first cancer of cutaneous metastasis found in men and is second to breast cancer for women[2]. Adenocarcinomas have been estimated to account from 3.1% to 45.0% for cutaneous lung metastases[1,3]. Some adenocarcinomas to the skin from the lung show well-formed, glandular structures, which are similar to gastrointestinal metastatic adenocarcinomas[2].

A 67-year-old woman was referred for a pruritic, erythematous plaque on the neck for two months. The lesion

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was a solitary, indurated, nontender plaque (Fig. 1). A workup with weight loss and epigastric pains included a computed tomography (CT) of the chest and abdomen was performed 4 months prior to the presentation of the neck mass. The chest CT showed a enhancing mass lesion which probably indicated lung cancer. In addition, the abdomen CT and endoscopic retrograde cholangiopancreatography which were performed at that time also revealed a gall bladder (GB) carcinoma and cholangiocarcinoma. The patient subsequently received a stent insertion into the common bile duct (CBD) due to distal duct obstructions. Further workups, including a full body and brain positron emission tomography-computed tomography, demonstrated an intense and localized fluorodeoxyglucose (FDG) uptake which suggested primary lung cancer. The GB carcinoma and cholangiocarcinoma also showed. The brain and neck including thyroid displayed no definite abnormal metabolisms. The patient denied further treatments. After 4 months, she visited our outpatient clinic because of a skin lesion in the neck. The biopsy specimen showed well-circumscribed tumor nodules in the lymphatic vessel. The tumor was composed of pleomorphic cells with eosinophilic cytoplasm and mitotic figures. Rare gland formation was being noted (Fig. 2A). The tumor was stained positively for carcinoembryonic antigen, cytokeratin, and thyroid transcription factor 1 (TTF-1) (Fig. 2B) but negatively for desmin. The fact indicated that the mass in the left lung should be a lung cancer. Therefore, the carcinoma erysipeloid lesion lies in its potential as a diagnostic marker for internal malignancy even though the lung biopsy was not performed.

Fig. 1. A solitary, irregular-shaped, erythematous plaque on the neck.

Carcinoma erysipeloides is an uncommon form of cutaneous metastasis. Carcinoma erysipeloides is clinically characterized as a sharply defined, erysipelas-like, erythematous plaque associated with skin metastasis. These metastases suggest inflammatory skin changes due to the direct spread of tumor cells via dermal lymphatic vessels. Although carcinoma erysipeloides is usually caused by breast carcinoma, it is also associated with other malignancies, including adenocarcinoma of the pancreas, rectum, ovary, and parotid gland[4]. However, carcinoma erysipeloides in a female patient originated from adenocarcinoma of the lung has been observed very rarely.

Cutaneous metastases are infrequently presented at the time of the cancer at the initial diagnosis. Several studies have demonstrated the utility of CK7, CK20 and TTF-1 when identifying the origin of tumors[5]. In the case of adenocarcinoma, immunohistochemistry is also quite

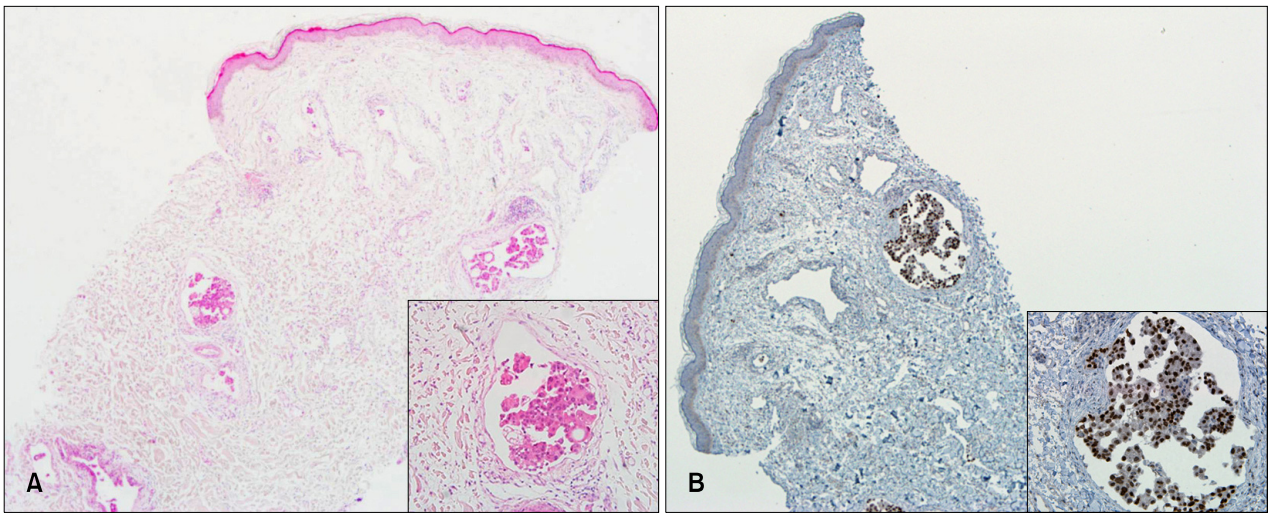

Fig. 2. (A) Well-circumscribed tumor nodules in the lymphatic vessel (H&E, original magnification ×40; inset ×200). (B) Thyroid transcription factor-1 (TTF-1)-positive cells (TTF-1, original magnification ×40; inset ×200).

useful. Nuclear expression of TTF-1 is a characteristic of both primary lung cancer and thyroid cancer.
We suggest that adenocarcinoma of the lung should be taken into consideration as a possible cause of inflammatory cutaneous metastasis.

REFERENCES

1. Hidaka T, Ishii Y, Kitamura S. Clinical features of skin metastasis from lung cancer. Intern Med 1996;35:459-462.
2. Brownstein MH, Helwig EB. Metastatic tumors of the skin. Cancer 1972;29:1298-1307.
3. Kamble R, Kumar L, Kochupillai V, Sharma A, Sandhoo MS, Mohanti BK. Cutaneous metastases of lung cancer. Postgrad Med J 1995;71:741-743.
4. Cox SE, Cruz PD Jr. A spectrum of inflammatory metastasis to skin via lymphatics: three cases of carcinoma erysipeloides. J Am Acad Dermatol 1994;30:304-307.
5. Sariya D, Ruth K, Adams-McDonnell R, Cusack C, Xu X, Elenitsas R, et al. Clinicopathologic correlation of cutaneous metastases: experience from a cancer center. Arch Dermatol 2007;143:613-620.

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Generalized Idiopathic Benign Acanthosis Nigricans in Childhood

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Dear Editor:
Acanthosis nigricans (AN) is a velvety thickening of the epidermis that may signify internal diseases[1]. During childhood, AN is obesity-associated amongst majority of cases, and it is considered an important cutaneous marker of insulin resistance (IR)[1]. Axillae, posterior neck fold and flexor skin surfaces represent primarily affected areas. However, although rarely, a generalized form of AN has been described[2-5], which is not associated with IR or internal diseases. We present the case of a 2-year-old Caucasian girl that sought consultation to our clinic for the onset of skin roughness and darkening of the wrists. The mother reported that the skin roughness started a few months after birth, slightly extended to periflexural areas and was associated to a mild pruritus. The girl was born from non-consanguineous parents, with a normal pregnancy and delivery. Psychophysical development was normal. Weight, height and body-mass-index were normal according to age and sex. Skin examination revealed bilateral thickening, darkness, and rough plaques which affected the neck, main folds, navel, upper and lower limbs (Fig. 1). Mucosae, palms, soles, genitalia, hair and nails were not involved. A 3-mm-incisional-biopsy specimen obtained from the popliteal region showed papillomatosis, basket weave pattern hyperkeratosis, mild hyper-

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