FLORID CUTANEOUS PAPILLOMATOSIS, MALIGNANT ACANTHOSIS NIGRICA. PALMOPLANTAR KERATODERMA, AND GASTRIC ADENOCARCINOMA

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Abstract - Florid cutaneous papillomatosis (FCP), is a rare cutaneous marker of internal malignancy. The underlying cancer is usually intra-abdominal (most often gastric in origin), and evolves parallel to the FCP. There is a common association between FCP and the other two eruptive paraneoplastic syndromes, i.e.malignant acanthosis nigricans and the sign of Leser-Trelat. It seems possible that these syndromes develop via a common pathogenic pathway due to production of a factor similar to human epidermal growth factor by the underlying cancer. We report a case of FCP associated with malignant acanthosis nigricans, palmoplantar keratoderma and gastric adenocarcinoma.

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Key words: Florid cutaneous papillomatosis, malignant acanthosis nigricans, paraneoplastic syndromes, gastric adenocarcinoma

INTRODUCTION

Florid cutaneous papillomatosis (FCP) is the sudden eruption of numerous cutaneous papillomas, clinically indistinguishable from viral warts; they are associated with underlying malignancy (1). The lesions develop on the trunk, extremities, and face (2). Gastric adenocarcinoma is the most frequent malignancy associated with FCP (1).

CASE REPORT

A 53 year-old man was evaluated in September 1994 for the develompent of numerous pruritic warty papules on the back of hands and feet, and face since 5 months ago. He also had a history of fatigue, anorexia and weight loss of about 15 kg during the prevoius year. In addition, he complained of severe generalized pruritus and diffuse dark discoloration of skin. There was no history of gastrointestinal symptoms (tarry stool, dysphagia, etc), or systemic illness or family history of similar cutaneous lesions. Physical examination revealed darkly pigmented, scratched skin, and velvety brown, hyperkeratotic papillomatous lesions, mostly in the head and neck (Fig. 1), axillae and groins (compatible with malignant acanthosis nigricans); and multiple verrucous papules of the dorsum of the hands (Fig. 2), feet and face, that were 3-5 mm in diameter and indistinguishable from viral warts (FCP lesion). There was a diffuse palmoplantar keratoderma. The involved buccal mucosa (Fig. 3) revealed a cobble-stone appearance. There was no significant finding in the abdominal and general physical examinations. Skin biopsy of the warty lesoins showed orthokeratosis, acanthosis and papillomatosis. There was no evidence of epidermal vacuolization or eosinophilic inclusions, suggestive of viral wart (Fig. 4). Biopsy of a warty oral papule revealed marked papillomatosis, and acanthotic epithelium with mild parakeratosis (Fig. 5). Skin biopsy of axillary lesions showed hyperkeratosis, papill- omatosis with upward projection of finger-like dermal papillae covered with thinned epidermis, and intervening valleys covered with acanthotic and hyperkeratotic epidermis. These findings (Fig. 6) were typical for acanthosis nigricans. The remarkable laboratory data were an erythrocyte sedimentation rate of 50 mm/h, hemoglobin of 11.2 g/dl, hematocrit of 34%, hypochromic red blood cells, WBC count of 9100/mm^3 with 83%

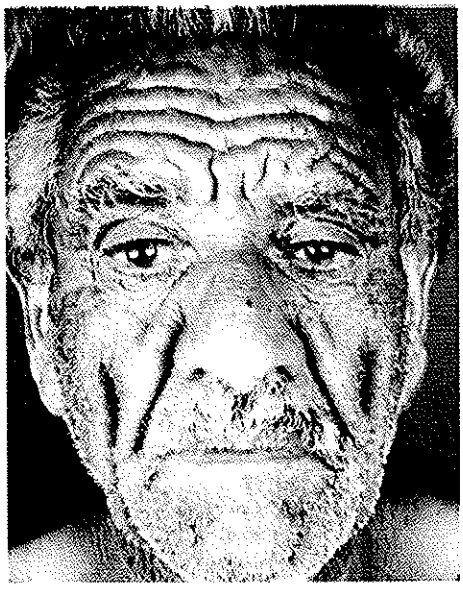

Fig. 1. Darkly pigmented skin and velvety brown hyperkeratotic papillomatous lesoins in the head and neck (malignant acanthosis nigricans)

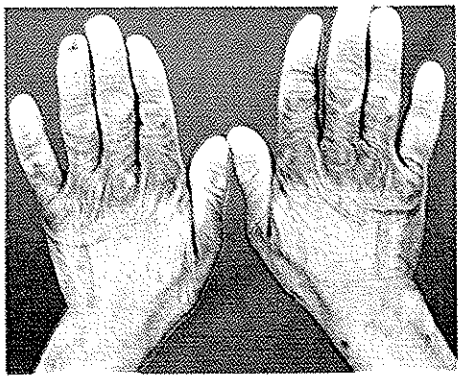

Fig. 2. Multiple verrucous papules on the dorsum of the hands (FCP Lesion)

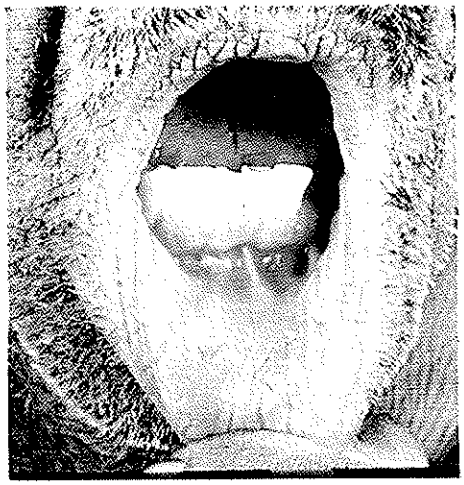

Fig. 3. Cobble stone appearance of buccal mucosa

Fig. 4. Histology of a warty skin papule shows orthokeratotic hyperkeratosis, acanthosis and papillomatosis.

Fig. 5. Biopsy of a warty oral papule revealed marked papilomatosis and acanthotic epithelium with mild parakeratosis

Fig. 6. Histopathology of axillary lesions was typical for acanthosis nigricans.

polymorphonuclear cells. Examination of stool for occult blood and urinalysis were within normal limits. Chest X-ray revealed normal findings. Upper GI series showed several filling defects in the cardia, fundus and lesser curvature of the stomach. Endoscopic biopsy of the lesions confirmed metastasizing adenocarcinoma of stomach. Surgical intervention revealed gross involvement of stomach, spleen, pancreas and omentum. Gastrectomy, splenectomy and esophago-jejunostomy (Roux en Y reconstructions) were done. Three months later, all of the warty lesions (FCP) were cleared; and pruritus, palmoplantar keratoderma, hyperpigmentation and cutaneous changes of acanthosis nigricans got improved (Fig. 7). He had a good appetite and gained weight, too. He was recently visited again. He had a good general condition after about two years.

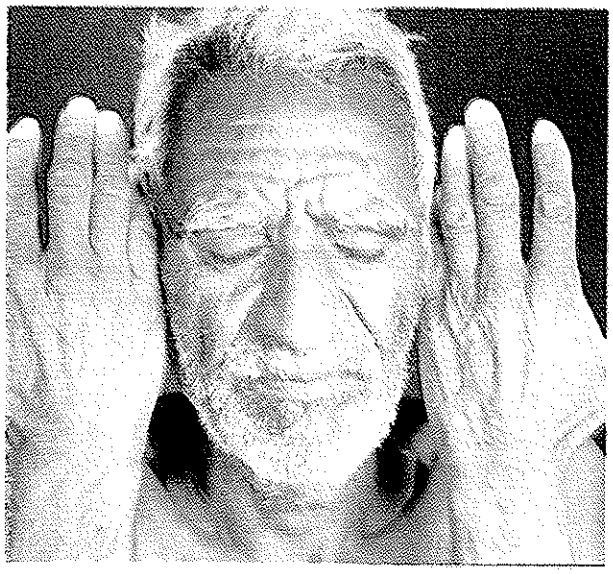

Fig. 7. The clearance of all of warty lesions, hyperpigmentation and cutaneous changes of acanthosis nigricans after surgery.

DISCUSSION

Florid cutaneous papillomatosis (FCP) is characterized as a unique entity since 1978 (3). It is a rare condition. Gheeraert et al and co-workers identified only 23 cases in their review of the literature (2). Men were two times more commonly affected than women. In most of the patients, the diagnosis was made between 53 and 72 years of age (mean age 58.5 years). Each patient had an underlying malignancy, the most common being a gastric adenocarcinoma (15 of 23). Other associated neoplasia were: ovary, uterus, breast or biliary duct adenocarcinoma, bladder carcinoma, non-Hodgkin lymphoma, squamous cell or small cell carcinoma of the lung. A significant feature of FCP is that its onset often precedes or is simultaneous with the diagnosis of internal cancer; and therefore offers a clue to seek for a hidden malignancy.

Clinically, the papules of FCP are usually indistinguishable from common viral warts. They suddenly appear on the limbs, especially on the back of the hands and wrists, but may spread anywhere on the body. The other sites of predilection are the trunk and face, around the eyes and mouth (1). Pruritus is a significant and common symptom which may precede the onset of FCP. It may be localized or generalized (1). The resuls of viral investigations including ultrastructural evaluations (3,4), immunofluorescence study (5), viral serology (5) etc have been negative. Histopathologic examination of the FCP lesions shows pronounced hyperkeratosis, papillomatosis and variable degrees of acanthosis. There is no evidence of parakeratosis, epidermal vacuolization or eosinophilic inclusions suggestive of viral warts(1). FCP may occur together with other cutaneous signs of internal malignancy including the sign of Leser-Trelat. (eruptive seborrheic keratosis and acanthosis nigricans (the most frequent associations) (2), hypertrichosis lanuginosa acquisita, and acquired ichthyosis (5). Although the etiology of FCP is unknown, it appears most likely that FCP and other two eruptive paraneoplastic syndromes (i.e. malignant acanthosis nigricans and the sign of Leser-Trelat) are induced by their underlying malignancy via a tumor-secreted growth factor (3,6). Increased epidermal staining of the epidermal growth factor receptor in the skin specimens of the patients; and marked decline of this staining and urine level of alpha transforming growth factor after surgical removal of the underlying cancer were observed (3,7).

Marked improvement of the wart-like lesions (FCP) has been observed in one-third of the reported cases after chemotherapy or surgical intervention against the internal malignancy (3,5) as reported in the present case. Dissemination and metastasis of the underlying malignancy has been associated with worsening of the cutaneous lesions (4,8).

Except for topical 5-Fluorouracil (9) all of the palliative methods of treatment of FCP (oral retinoids, radiotherapy, topical steroids, salicylic acid and liquid nitrogen), have been unsatisfactory. The case reported herein, presented with FCP and other cutaneous changes, without any related gastrointestinal complaints. Since gastric adenocarcinoma is the most common associated malignancy, the necessary investigations were done and gastric adenocarcinoma was confirmed. Early surgical intervention improved the acanthosis nigricans, and FCP. This case is another example of the association of acanthosis nigricans, FCP and internal cancer, and proves that FCP, although rare, is a good marker of malignancy, sometimes before the development of the signs and symptoms of the underlying malignant disease. Mucosal lesions are not mentioned as a usual finding in previously reported cases of FCP. Our case showed warty lesions with a cobble-stone appearance in the buccal mucosa.

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