

Malignant Acanthosis Nigricans as a Paraneoplastic Precursor of Metastatic Cholangiocarcinoma

Sir,

A 36-year-old woman, active smoker, with no other medical record, was referred to dermatology for suspected genital warts. She had a three month-history of palpable genital lesions associated with recurrent itching, with no other symptoms. Physical examination revealed small filiform papules on the inner thighs, compatible with condylomas. It was also notable the presence of large hyperkeratotic, verrucous, velvety, and pigmented plaques in inguinal folds and vulva, with extension to inner thighs, buttocks, and perineum [Figure 1a]. Condylomas were treated with cryotherapy. On suspicion of malignant acanthosis nigricans, systemic work-up was initiated and skin biopsy was performed. One month later, she presented with new similar plaques in elbows, axillae, and neck [Figure 1b-d], and the presence of tripe palms [Figure 2]. Laboratory analysis stood out a mild normochromic, normocytic anemia, and a slight elevation of gamma-glutamyl transferase (GGT: 166 UI/L), other tests were normal. Histopathology study showed hyperkeratosis, papillomatosis, and acanthosis [Figure 3a and b]. Thorax, abdominal, and pelvis CT informed bilateral pulmonary nodules; multiple mediastinal lymphadenopathies; and multiple hepatic nodules associated with hepatomegaly. Upper digestive endoscopy was normal. The patient evolved with generalized pruritus, rapid enlargement of cutaneous lesions, and development of new plaques in perianal skin and anal mucosa [Figure 4a and b]. She was referred to a surgical oncologist for further evaluation. A cervical lymph-node biopsy was performed concluding differentiated tubular adenocarcinoma metastasis compatible with cholangiocarcinoma.

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Acanthosis nigricans is considered a cutaneous manifestation of systemic disease, most often associated with obesity, insulin resistance, and diabetes.^[1] It manifests with symmetric velvety, verrucous, hyperpigmented plaques in intertriginous areas. Less frequently it represents paraneoplastic dermatoses, called malignant acanthosis nigricans (MAN), which may appear either simultaneously, following or preceding tumor detection.^[1,2]

MAN, generally affects adults with an average of 40 years, occurs equally in both sexes, with no racial predilection or familial association.^[1]

Hyperkeratosis, papillomatosis, and some degree of acanthosis are characteristic, if not pathognomonic, findings in the histopathological analysis.^[1] Although it is indistinguishable from its benign form, diagnosis is based upon clinical suspicion. History of sudden onset, rapid progression of cutaneous lesions, extensive involvement, affection of atypical sites (mucous membranes), presence of other paraneoplastic features such as tripe palms, florid cutaneous papillomatosis, Leser-Trélat sign, and unexplained weight loss, are highly suggestive of an underlying malignancy.^[1-3] MAN has been associated with many internal malignancies, especially with gastrointestinal adenocarcinomas,^[1-4] however, the association between cholangiocarcinoma and MAN is rare, and only a few reports can be found in the literature.^[2-4]

Cholangiocarcinomas are aggressive tumors, patients have the advanced-stage disease at presentation, and only a minority will have an early-stage disease amenable to surgical resection with curative intent.^[5]

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Figure 1: Hyperkeratotic, verrucous and pigmented plaques affecting inguinal folds and vulva (a). Involvement of axillae (b), elbows (c), and neck (d)

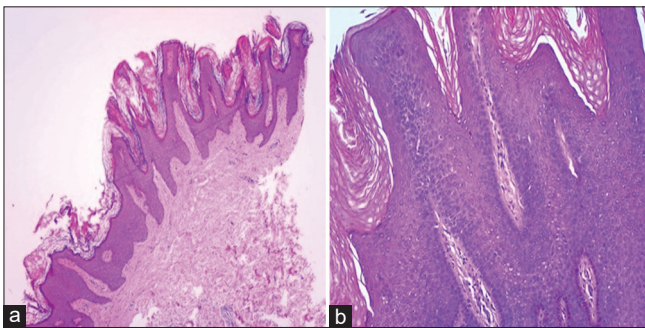


Figure 3: Hyperkeratosis, papillomatosis and acanthosis. Hematoxylin eosin (H/E), 2x (a), 10x (b)

Skin involvement often improves with treatment of the neoplasm, and it aggravates as the malignancy worsens or relapses,^[1] therefore dermatologic follow-up is critical for these patients.

We describe the case of a sudden and widespread MAN, that preceded the diagnosis of aggressive cancer, emphasizing the need for high suspicion index, since a prompt diagnosis and timely treatment of the neoplasm could change the survival of our patients.

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Conflicts of interest

There are no conflicts of interest.



Figure 2: Incipient acquired pachydermatoglyphia (tripe palm) in both palms



Figure 4: Involvement of genital mucosa (a); perianal skin and anal mucosa (b)

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