

Malignant Acanthosis Nigricans With Tripe Palms

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Citation

K Shivaswamy, T Vettrichevvel, D Thappa, C Laxmisha. *Malignant Acanthosis Nigricans With Tripe Palms*. The Internet Journal of Dermatology. 2004 Volume 3 Number 1.

Abstract

Acanthosis nigricans (AN) is characterized by hyperpigmentation and papillary hypertrophy, predominantly of major body folds. In extensive AN, it can be found on the areolae, around the umbilicus, and on the mucosa. Rarely, the involvement may be universal. 1 We herewith report such a case.

CASE REPORT

A 62-year-old male agricultural worker came to us with asymptomatic gradually progressive generalized pigmentation of the body of 6 months duration. In addition, he had weight loss (>10 kg), anorexia, and profound weakness. For this complaint, he was examined in a hospital about 4 months back and was found to have a mass in upper abdomen. Ultrasound abdomen showed irregular wall thickening at antropylic junction of stomach. Endoscopic examination showed an ulcerated growth at the same site. On exploratory laparotomy, an inoperable large growth was found at antropylic junction of the stomach infiltrating pancreas. The abdomen was closed after a partial gastrectomy with anterior antecolic gastrojejunostomy. Pathological examination of the infiltrating tumor mass revealed features of mucous secreting adenocarcinoma. Following surgery, his skin pigmentation continued to increase substantially.

On general physical examination, there was moderate pallor. Cutaneous examination showed generalized, near universal, hyperpigmentation and velvety rugosities, more marked in periorificial sites, major body folds, around the areolae, dorsa of hands and feet. Numerous skin tags were also noted in the body folds. Bilateral palms and soles had velvety thickening. Finger tips demonstrated pachydermatoglyphy (exaggerated finger prints) (Fig. 1). Finger nails were thin and brittle (Fig. 2). Mucosal examination revealed scrotal tongue.

Figure 1

Figure 1: Pachydermatoglyphy involving finger tips



Figure 2

Figure 2: Nail dystrophy



Complete hemogram showed a hemoglobin of 6 g/dl, raised erythrocyte sedimentation rate (60 mm in 1st hour) and a normocytic normochromic peripheral blood smear. Liver and renal function tests were within normal limits. Chest skiagram did not reveal any abnormalities. Histopathological examination of the representative skin lesion (cubital fossa) showed features of hyperkeratosis, papillomatosis and hyperpigmentation of the basal layer consistent with the diagnosis of acanthosis nigricans. Based on these clinical features and laboratory findings, a diagnosis of malignant acanthosis nigricans with tripe palms was made.

DISCUSSION

There are several categories of AN, namely, benign hereditary, benign, obesity associated, syndromic, malignant, drug induced, acral, naevoid, and mixed.² The malignant form of the disease is sudden in onset, rapidly progressive, and there is partial or complete resolution with treatment of the original malignancy. The involvement is more generalized compared with the predominantly flexural involvement in other forms. Malignant AN associated with tripe palms is usually seen with gastric adenocarcinoma whereas tripe palm alone occur as an isolated cutaneous marker of various tumors involving bladder, bronchus, rectum, bile duct etc.³ Tripe palms is a descriptive term for a cutaneous paraneoplastic keratoderma characterized by velvety thickening of palms, with accentuation of the normal dermatoglyphic ridges and sulci.^{3, 4} Although, tripe palms have been reported in patients without any underlying malignancy, the majority (90%) of the cases are associated with internal neoplasm.^{3, 4} The reason for the development of acanthosis nigricans or palmaris is still debatable, but

many studies have shown that release of epidermal growth factors (EGF) by the tumor cells are responsible for this.⁵

CONCLUSION

Malignant AN is one of the rare cutaneous paraneoplastic syndromes.² It may develop concurrent with, before, or after the diagnosis of the associated internal malignancy. Once the diagnosis of malignant AN is considered, all efforts should be undertaken to locate the hidden malignancy. In most cases, the occult neoplasm is highly aggressive or in an inoperable stage as in our case. Average life expectancy of the patients after the malignancy is discovered or resected is one year.² Near universal involvement by malignant AN with nail dystrophy seen in our case is rarely recorded phenomenon.

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