Comparative dermatology: elephantiasis nostra in verrucous form comparable to coral

Dermatologia comparativa: similaridade entre elefantíase nostra verrucosa e coral

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Abstract: Study of a rare case of Elephantiasis Nostra in verrucous form on the dorsum of the foot of an 80-year-old male with a history of recurrent erysipelas infection. The vegetant, confluent lesions on the foot resemble Trumpet Coral (Caulastrea curvata).
Keywords: Elephantiasis; Erysipelas; *Streptococcus pyogenes*

Resumo: Demonstra-se quadro raro de Elefantíase Nostra, na sua forma verrucosa, no dorso de pé de homem de 80 anos por episódios prévios de erisipela de repetição. As lesões confluentes vegetantes e difusas em dorso de pé são comparáveis aos corais Trumpet Coral (Caulastrea curvata).
Palavras-chave: Elefantíase; Erisipela; *Streptococcus pyogenes*

Erysipelas is an acute non-necrotizing dermo-hypodermal infection, usually caused by beta-hemolytic *Streptococcus pyogenes*, especially Lancefield group A. The infection is characterized by sudden onset of fever and chills lasting between 12 and 24 hours[1]. It is an infectious lymphangitis marked by a red skin-rash with a sharply demarcated raised edge, spread along the lymph capillary network and also affecting the lymph nodes. [2] This occurs not only in non-infectious lymphangitis, but also in the recurrent episodes of erysipelas suffered by elderly or immunodepressed patients, due to lymphatic impairment. The exudate of protein, fibrin and figurata elements, as well as endothelial damage causing thrombosis of the lymphatic trunk, eventually leads to edema and lymphedema. [3] About 85% of lymphedemas are due to recurrent lymphangitis, and therefore this diagnosis should always be considered when the dermatological symptoms are associated with lymphatic impairment (lymphedema, lymphangitis). Chronic lymphedema caused by erysipelas can lead to deformities typical of Elephantiasis Nostra, [4] often inviting comparison with natural coral, especially the *Trumpet Coral (Caulastrea curvata)* species.

CASE REPORT

An 80-year-old agricultural worker, phototype V, presented lesions with a mossy, verrucous appearance. Exophytic and agglomerated lesions measuring 0.5 to 5 cm were observed on the back of the right foot and toes (Figure 1). Patient cited a number of untreated erysipelas episodes over 20 years. Histopathology showed fibrosing dermatitis with perivascular lymphocytic infiltrate associated with substantial epidermal hyperplasia. No granulomas, acid-fast bacilli (AFB), fungi or signs of malignancy were discovered in the material examined. Negative culture for fungi.

DISCUSSION

Erysipelas is an infectious lymphangitis which in over 80% of cases is located in the lower limbs, and is affected by a patient´s predisposition to chronic lymphedema and obesity. The diagnosis is essentially clinical, based on the presence of plaque inflammation associated with fever, lymphangitis, lymphadenopathy and leukocytosis. Elephantiasis Nostra, which can result from chronic lymphedema caused by recurrent erysipelas, is a rare, chronic and deforming disor-

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Figura 1: Mossy foot with large vegetating and verrucous lesions spread over the entire back of the right foot and toes. Close-up of an exophytic verrucous lesion

Figura 2: Comparison of *eliphantiasis verrucous* lesions with *Trumpet Coral (Caulastrea curvata)*

der, characterized by verrucous hyperkeratosis and papillomatosis of the epidermis, associated with fibrosis of the dermis and subcutaneous tissue [3]. Since the disease presents as widespread, vegetating and verrucous lesions affecting the whole of the back of the foot and toes, causing elephantiasis-type deformity, it is often compared with coral, particularly the species known as *Trumpet Coral (Caulastrea curvata)* (see Figure 2). [4] Underwater coral reefs grow by first establishing a skeleton structure for each new polyp. They then secrete a rigid calcium carbonate skeleton and, when the organism dies, the structure remains in place. New coral grows on the old skeleton to form reefs similar to the lesions presented in cases of erysipelas. [5] ❑

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