Presternal Skin Growth in a Brazilian Young Woman

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This 20-year-old woman with dark skin type came to our service for evaluation of a slowly enlarged and asymptomatic cutaneous thickening on her anterior chest region of about six years duration. She was born in the Brazilian Amazon region, and lived in tropical humid areas. At fourteen years she suffered an accidental fall with anterior chest trauma, which resulted in a superficial wound with local infection. The healing of the lesion was delayed for about a month, and the resultant scar progressively increased in size even beyond the limits of the original wound. Her mother had a lesion that suspected to be scleroderma, but investigation ruled out this hypothesis. Physical examination revealed a presternal plaque with a rubbery consistence, an irregular surface, and an outline containing numerous papules of more than 5 mm in diameter (Figures 1, 2). It was worthy of note that the patient was otherwise healthy, and routine laboratory exams were normal.

What is your diagnosis?

A. Chromoblastomycosis
B. Hypertrophic scar
C. Keloid
D. Keloidal morphea
E. Lobomycosis
ANSWER to PHOTO QUIZ

Keloid

Discussion

This young dark skinned woman had a chronic growth, which developed at the site of a trauma with an infected wound in the chest wall, approximately six years before the present evaluation. Worthy of note was the time elapsed between the original wound and the appearance of the change, the relentlessness of progression with extensions beyond the borders of the initial lesion. The diagnosis of keloid was established in this patient on the basis of the history, typical clinical features, and histopathology (non-flattened epidermis, non-fibrotic papillary dermis, a tongue-like advancing edge, horizontal cellular fibrous band in the upper reticular dermis, and a prominent fascia-like band). Granulomas, lymphocytic infiltration, and microorganisms were absent. Differential diagnoses include the hypothesis here presented, and other malignant and benign conditions (dermatofibrosarcoma protuberans, keloidal basal cell carcinoma, trichilemmal carcinoma; adult-onset juvenile xanthogranuloma, apocrine cystadenoma, chronic folliculitis, and mixed tumor). Treatment options are: cryotherapy; intralesional steroid injection; intralesional bleomycin, 5-fluorouracil, verapamil, and interferon alfa-2b injections; laser and radiation therapies; pressure dressings; silicone gel sheeting, and surgical excision.

Hypertrophic scars develop one month or less after a wound, appearing thickened and irregular, but confined to the margins of the original wound, and usually show improvement with time. Chromoblastomycosis (chromomycosis) is a chronic skin and subcutaneous disease of tropical or subtropical areas caused by dematiaceous fungi such as Fonsecaea pedrosoi and Cladophialaphora carrionii, and from other genera (Phialophora, Rhinocladiella, Exophiala, and Wangiella). Keloidal and verrucous polymorphic lesions are frequently observed, and more often develop in the lower limbs, following trauma involving vegetative materials. Direct microscopic examination of the lesions can detect fumagoid cells and colonies of black fungus develop in Sabouraud dextrose agar and mycobiotic agar cultures. Treatment includes itraconazole and terbinafine.

Keloidal morphea (nodular scleroderma, keloidal scleroderma) is a chronic skin condition characterized by keloidal plaques and nodules developed in individuals with localized scleroderma (morphea). Grossly, the lesions can be indistinguishable from typical keloidal scars. Although the histopathology findings of skin samples are similar to those observed in common keloids, the interstitial inflammation with peri-ecrine and peri-appendageal lymphocytic infiltration in the deep dermis contribute to the diagnosis of keloidal scleroderma.

Lobomycosis (lacaziosis, Jorge Lobo's disease) is a chronic disease of the skin and semimucosa, caused by the fungus Lacazia loboi, affecting people from South and Central America. Nodules and plaques mimicking keloids are predominant in exposed areas such as earlobes and upper and lower extremities. These lesions often follow contact with vegetable or soil, and are rarely described in the chest. Direct microscopic examination of lesion samples shows abundant round yeasts with double-contour walls, and the agents appear isolated or disposed in short chains. Cultures of this agent have not yet obtained in clinical practice. Treatment includes itraconazole, clofazimine, 5-fluorocytosine, eletrocoagulation, surgical exeresis, and cryotherapy.

Due to the unfamiliarity of physicians with exotic imported travel-related infections, immigration and intercontinental travels may pose new diagnostic challenges involving common conditions.

References