

Comedones and Milia Appeared After the Recovery of Cutaneous Leishmaniasis

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Abstract

Observation: Cutaneous Leishmaniasis (CL) is a major world health problem that is growing epidemically in many areas of the world including our region (Syria). Scarring after the recovery of Cutaneous Leishmaniasis (CL) is common. We described a case of cutaneous leishmaniasis which healed with milia and comedones formation. Comedones have not previously been reported as sequelae of cutaneous leishmaniasis.

Introduction

We described a case of cutaneous leishmaniasis (CL) which healed with milia and comedones formation

Case Report

A 10 year-old female had CL on the cheek five months ago. Initially she was treated with intraleisional Glucantime every week for two months without benefit. then she was treated successfully with four cycles cryotherapy (liquid nitrogen) every 15 days. Milia and comedones formation was noticed within the scar after healing (**Figure 1**).

Discussion

CL is a major world health problem that is growing epidemically in Syria. According to the World Health Organization (WHO), leishmaniasis is endemic in 88 countries with 350 million persons at risk. Approximately 1.5 million new cases of cutaneous leishmaniasis are reported annually, with two thirds of cases in six countries: Afghanistan, Algeria, Brazil, Colom-

bia, Iran, and Syria [1,2]. CL is the most common manifestation of leishmaniasis with approximately 1.5-2 million new cases per year [3]. It is a parasitic disease caused by Leishmania and transmitted by the bite of some species of sandflies and it affects various age groups [4]. This disease is highly prevalent in Syria where Leishmania major and Leishmania tropica are the known etiological agents. In 2011, more than 58,000 cases were reported in the country by the Ministry of Health [5].

CL lesions cured after treatment with Antimony compound either by local or systemic injection. Cryotherapy is another effective treatment but scarring is common in both treatments.

Milia are subepidermal keratin cysts and most commonly occur on the face. They can arise spontaneously or may occur following trauma including burns, radiotherapy and dermabrasion. Inflammatory dermatoses such as epidermolysis bullosa acquisita, porphyria cutanea tarda, bullous pemphigoid and bullous

lichen planus can all result in milia formation. Prolonged use of topical corticosteroids leading to skin atrophy has been reported to cause milia and also the nonsteroidal anti-inflammatory drug benoxaprofen may causes milia formation as well [6,7].

In our practice and in the literature we noticed that milia is often formed after the healing of leishmania [8,9]. Primary milia are thought to derive from vellus hairs at the inferior portion of the infundibulum whereas secondary ones, as in our patients, are derived from eccrine sweat ducts, abnormal epidermis or hair follicles [10].

Comedones occur when an overproliferation of keratinocytes blocks sebum secretion in a pilosebaceous duct. Comedones have multiple possible etiologies and contributing factors. While comedones are common to acne, they are also seen in occupational exposures and are associated with certain syndromes.

Comedones reported after herpes zoster infection. It is considered as Wolf's phenomenon [11,12,13], Wolf's isotopic response characterizes the occurrence of a new skin disorder at the site of another unrelated and already healed skin disease. The exact pathomechanism of development of such acneiform eruption is not clear but has been postulated to result from the resultant. Edema and inflammation, which may lead to follicular occlusion and the

resultant acneiform lesions.[11] Another hypothesis explaining the pathogenesis of acneiform eruption is the release of neuropeptides like substance P from damaged nerve endings, which has also been found to play a role in the pathogenesis of acne vulgaris by stimulating lipogenesis in the sebaceous glands and promoting an inflammatory response [12,14,15]. The exact molecular mechanism remains unknown [13].

Differential diagnosis include [1]. Favre-Racouchot syndrome (nodular elastosis with cysts and comedones) that tends to affect bilateral forehead and cheeks due to solar damage; [2] comedonal acne that often affects older ages with an increased inflammatory response; [3] nevus acneiformis, which is a rare, congenital disorder affecting face, neck and chest with dark keratin plugs [13].

There is no report in pub med about Comedones formation due cryotherapy using word "cryotherapy/ Comedones" and "Comedones induced by cryotherapy". This means in our case that the Cryotherapy is not a cause of formation comedones.

Comedones have not previously been reported as sequelae of cutaneous leishmaniasis. Moreover no biopsy was made because of the benign nature of this disorder.



Figure 1. Milia and comedones within scar tissue after healing

Conclusion

Cutaneous Leishmaniasis is a major world health problem that is growing epidemically in many areas of the world including our region (Syria). It causes scarring, and milia after healing. We described the first case of post-healing cutaneous leishmaniasis comedones.

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