

Dermoscopic Observations in a Patient with Lupus Vulgaris on Antituberculosis Therapy

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Abstract

Observation: Dermatoscope, a modified magnifying lense, facilitate a non-invasive rapid screening of skin lesions. Some specific patterns have been described for the diagnosis of scabies, viral warts, molluscum contagiosum, pediculosis, ticks, cutaneous leishmeniasis. Recent observations have revealed the impact of dermatoscopy in the diagnosis of lupus vulgaris.

Introduction

Dermatoscope, a modified magnifying lense, facilitate a non-invasive rapid screening of skin lesions. In the case of infectious skin diseases and infestations, this inexpensive and easy applicable technique may provide correct diagnosis faster as well as their discrimination from tumoral skin lesions. Thus, it has also recently become popular in the diagnosis of infectious conditions and eventually entodermoscopy has opened a new field. Some specific patterns have been described for the diagnosis of scabies, viral warts, molluscum contagiosum, pediculosis, ticks, cutaneous leishmeniasis. Lupus Vulgaris (LV) is the most common form of cutaneous tuberculosis caused by Mycobacterium Tuberculosis. Recent observations have revealed the impact of dermatoscopy in the diagnosis of lupus vulgaris.

Case Report

A 73-year old woman was referred to our department with a 25-year history of erythematous pla-

que lesion on the right cheek, auricle, and entire earlobe. The plaque was consisted of confluent yellow-red firm papules and it was encircled with these papules in the periphery (**Figures 1a and b**). The patient said that these lesions had progressively increased in number over the 25-year. Surprisingly, she had admit to physician one-month before for the first time. Histopathological evaluation of the lesion was proven to be lupus vulgaris. Her past medical history and family history were unremarkable. The general physical examination was normal. Laboratory and radiologic investigations did not reveal any other systemic involvement.

At the baseline dermoscopic evaluation, the lesion exhibited dilated follicular openings some with follicular plugs, linear/arborizing focused vessels on the background of diffuse yellow-golden colored ovoid structures, milia like cysts, opaque whitish streaks and fine superficial squams (**Figures 2 a, b, c, and d**). The four areas clearly representing yellow-golden areas, fine linear/arborizing vessels, milia like cysts and follicular plugs, super-

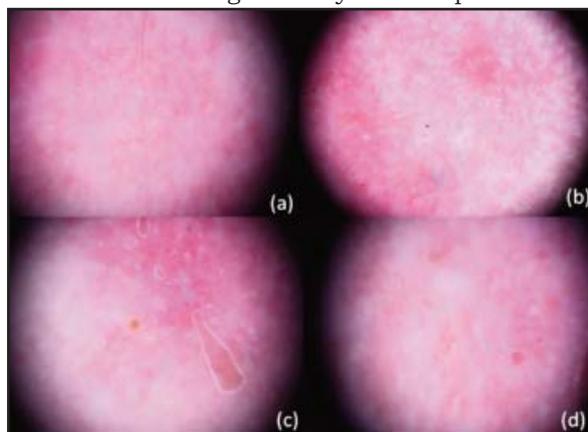


Figures 1a and b. Clinical images of the patient before (a) and after (b) the six-month therapy

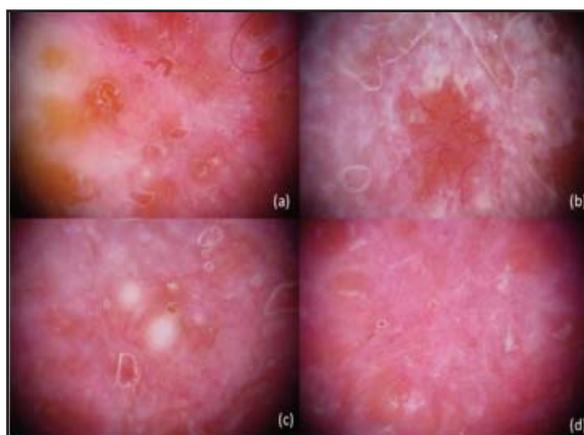
ficial squams were selected and recorded to be viewed at following visits.

Treatment with Isoniazid (300mg/daily, oral), Rifampicin(600mg/daily,oral),Pyrazinamide (2000mg/daily, oral), Etambutol (1500mg/daily, oral), Vitamin B6 (pyridoxine hydrochlorid) was started. Full physical and dermoscopic examination were performed at each visit. Sequential dermoscopic images of the same predetermined parts of the lesion and macroscopic images were recorded at baseline, week 4, week 8, week 16 and 24. Clinical and dermoscopic regression were observed as from the first visit. At week 24 clinical recovery achieved (**Figure 2b**).

Four week after the initiation of therapy, golden-yellow structureless ovoid areas faded obviously. They have decreased in number and size remarkably whereas focused linear vessels have showed minimal decreasing. These yellowish patches are



Figures 3a ,b, c, and d. Dermoscopic images rapidly after the treatment period. Therapy related alterations on the same parts of lesion



Figures 2a ,b, c, and d. Dermoscopic images at first visit. Yellow-golden globules (a) arborizing/linear vessels (b) milia like cysts and follicular plugs (c) superficial squams (d)

relevant with apple-jelly sign and predictive of underlying granulomas. Density of whitish streaks were the same as pre-treatment period. Lesion have exhibited smaller milia like cysts. Involution of the orange-yellow ovoid structures and white streaks were observed more clearly. At week 16, orange-yellow ovoid structureless areas and fine telangiectasies were almost completely disappeared. The lesion exhibited dense whitish streaks, a few and small milia-like cysts and superficial squams. Immediately after the antituberculosis therapy, at week 24, all structures resolved but follicular plugs remained the same as well as whitish reticular lines (**Figures 3a, b, c, and d**). We planned to perform histopathological evaluation at post-treatment follow-up period. She is still on follow-up.

Discussion

The diagnosis of skin infections usually depends on clinical signs combined with microbiological, serologic and other laboratory findings. Dermatoscope, a modified magnifying lense, facilitate a non-invasive rapid screening of skin lesions. Moreover, recent data indicate that it might be useful in assessing the treatment outcome and adverse effects of therapies [1, 2].

Lupus Vulgaris(LV) is the most common form of cutaneous tuberculosis caused by Mycobacterium Tuberculosis. LV consists of solitary reddish brown papules and plaques which shows peripheral extension and central healing with atrophic scar. Sometimes it presents with atypical clinical appearance and negative laboratory results. Considering the high pre-

velance of tuberculosis in our country, it is crucial early diagnose this condition on account to the fact that these lesions may lead to progressive scar, destruction of soft tissues or malignancy, if untreated. Recent observations have revealed the impact of dermatoscopy in the diagnosis of lupus vulgaris. Linear focused telangiectasies on a typical yellow to golden background, milia-like cysts and whitish reticular streaks are not specific alone but combination of these may result higher diagnostic sensitivity [3, 4].

Our preliminary observations highlight the usefulness of dermatoscopy as an adjuvant tool to the naked-eye clinical examination for the evaluation response to treatment and monitoring of LVs. Vascular structures and golden-yellow globules showed therapy related regression shortly after the initiation of therapy. Follicular plugs and whitish streaks were the two dermoscopic structures most refractory to treatment. This observation requires further long-term studies in order to assess repetitive findings of monitoring treatment outcome, be-

come familiar with this regression process, and to recognize residual disease.

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