Association of tuberculous lupus with scrofuloderma

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Abstract

Introduction: Cutaneous tuberculosis is rare. It ranks fifth. Cutaneous lupus is a rare variant of pauci-bacillary cutaneous tuberculosis affecting subjects with moderate to very high immunity. As for the scrofuloderma, it is a multi-bacillary form of low immunity frequent in our context. We report a case of tuberculous lupus associated with scrofuloderma. Case report: 61-year-old patient, with no notable pathological history, consults for a circumferential placard, squamous erythematous-purulent papillae with a papulo-crusty surface at the distal third of the forearm, wrist and back of the left hand, with scrofuloderms in the ipsilateral epiphlebial ganglionic chain. The rest of the somatic examination was unremarkable. The general state was preserved. Tuberculin intradermal reaction was positive. Cutaneous biopsy showed non-necrotic granulomatous tuberculoid dermatitis. The diagnosis of tuberculous lupus was strongly presumed. The patient received multidrug therapy. The evolution after six months of treatment was marked by complete disinfiltration of the lesion leaving room for a hypochromic atrophic scar patch.

Conclusion: Lupus tuberculosis is a variant of cutaneous tuberculosis rare in our context. However, it is necessary to think of it in front of a chronic, papular and serpiginous placard of evolution with a central slump and an erythematous-purpuric periphery because of the tubercular endemicity of our country.

Keywords: cutaneous tuberculosis - tuberculous lupus - scrofuloderma

Introduction

Cutaneous tuberculosis is much less common than other locations. It occupies the fifth row after pleuropulmonary, ganglionic, urogenital and digestive lesions. The diagnosis of cutaneous tuberculosis is often difficult because of the polymorphism of the anatomo-clinical charts and the multiplicity of different diagnoses. Cutaneous lupus is a rare variant of cutaneous tuberculosis, has affected previous individuals contaminated with BK and has reported moderate to very high immunity. His diagnosis is presumed on a bundle of epidemiological, anamnetic, clinical and histological arguments. We report a case of tuberculous lupus associated with scrofuloderma.

Observation

This is a 61-year-old patient from the suburb of El Jadida (City in Morocco) who is consulting for a cutaneous lesion of the left upper limb evolving for three years. There is no mention of vaccination with Bacillus Guerin and Calmette (BCG) or personal history of TBK or notion of TBK or insect bite. Clinical examination revealed a circumferential, squamous erythematous-purpuric papillotrichous placard at the level of the distal third of the forearm, wrist and back of the left hand (Figure 1), with scrofuloderms at the level of the ipsilateral epiphlebial ganglionic chain (Figure 2). The rest of the somatic examination was peculiar. The general state was preserved.

Tuberculin intradermal reaction was positive. Cutaneous biopsy showed non-necrotizing granulomatous granulomatous dermatitis (Figure 3).

Ziehl-Neelson's staining was negative. The chest x-ray was normal and the BK sputum test was negative. The remainder of the assessment did not reveal a patent tuberculosis outbreak or immunodeficiency. The diagnosis of tuberculous lupus was strongly presumed in front of the origin of the patient, the absence of vaccination with BCG, the appearance of the cupoloid and granulomatous dermatitis tuberculoid on histology. The patient received antituberculotic combination therapy (isoniazid 300 mg / day, rifampicin 600 mg / day, ethambutol 900 mg / day, pyrazinamide 1200 mg / day) for two months and then dual therapy (rifampicin and isoniazid).
The evolution after six months of treatment was marked by complete disinfiltration of the lesion leaving room for a hypochromic atrophic scar patch (Figure 4).

**Discussion**

The peculiarity of our observation lies in the rarity of lupus tuberculosis in our context, its rare localization at the extremities, the diagnostic difficulty of cutaneous tuberculosis and the exceptional association in our patient of scrofuloderms, which is a multi-bacillary low immunity, with pauci-bacillary lupus tuberculosis showing strong immunity.

Tuberculosis is an infectious disease caused by Mycobacterium tuberculosis. Morocco is a country of high endemicity (30,897 cases of TBK in 2017). Cutaneous tuberculosis is rare and represents only 1 to 2% of extra-pulmonary locations [1, 2]. Tuberculous lupus is a paucibacillary form that is accompanied by a high immunity, it is more common in Western countries unlike our country where it represents only 5.79 to 9%; in favor of the forms of low immunity represented by gums and scrofuloderms in our context [1, 3, 4].

The role of BCG in the genesis of lupus tuberculosis has been very often mentioned by several authors; others have suggested underlying disorders of cell-mediated immunity [5, 6].

The elective location is the face and the neck and rarely the extremities which is the case for our patient [7-9]. The diagnosis of certainty of lupus tuberculosis remains difficult: the culture is positive only in less in 10% of cases, the rapid detection methods of Mycobacterium tuberculosis by genomic amplification (PCR) are used in the pauci-bacillary forms but with a medium sensitivity and specificity (possible false positives) and the histology shows a tuberculoid granuloma where caseification is usually absent or poorly marked [10-12]. In our patient, the diagnosis of lupus tuberculosis was strongly suspected before the conjunction of the following arguments: the strong endemic tuberculosis of our country, the absence of BCG vaccination, the state of precariousness and the low socio-economic level of the patient, the clinical presentation of the placard with the presence of scrofuloderms, the chronicity of the lesion, the aspect of tuberculoid granuloma without caseous necrosis histology and improvement under antituberculous treatment as a retrospective argument.

**Fig 1A:** on the back of the hand Left and posterior distal third of the forearm left

**Fig 1B:** at the anterior surface distal third of the forearm left

**Fig 1:** Circumferential papillocritic erythematous-purple patch with papulo-crustaceous surface

**Fig 2:** Scrofuloderms at the left homolateral epitrochlear chain

**Fig 3A:** Epidermis ulcerated in one place, elsewhere it is acanthotic, sits exocytosis in PNN and surmounted by hyperparkeratosis.

**Fig 3A and B:** inflammatory dermal infiltrate abundant mainly lymphohistiocytair with presence of some PNN. Presence of non-necrotizing epithelio-giganto-cellular granulomas.

**Fig 3:** Appearance of non-necrotizing granulomatous granulomatous dermatitis suggestive of infectious origin
Fig 4A: Back of the hand Left and the face posterior distal third of the front arms gauche

Fig 4B: Front side distal third of the front left arm

Fig 4: Complete disinfiltration of lesion + atrophic hypochromic scar patch after treatment

Conclusion
Lupus tuberculosis is a variant of cutaneous tuberculosis rare in our context. However, it is necessary to think of it in front of a chronic, papular and serpiginous placard of evolution with a central slump and an erythemato-purplish periphery because of the tubercular endemicity of our country. The diagnosis is established in front of a beam of argument. Long-term monitoring is required because of the risk of squamous cell carcinoma on the scar tissue.

Declaration of interests
The authors declare that they have no conflicts of interest.

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