



Cutaneous Tuberculosis: Issues in the Diagnose

Yacquelynes Corona Hechavarria Y<sup>1\*</sup> <sup>1</sup>1<sup>st</sup> and 2<sup>nd</sup> degree Specialist in Family Medicine, Provincial Association of Family Medicine, Holguin, Cuba  
 Maria Teresa Lao Rivera<sup>2</sup> <sup>2</sup>1<sup>st</sup> degree Specialst in Family Medicine, Provincial Association of Family Medicine, Habana, Cuba  
 Leroy Olabachea Varona<sup>3</sup> <sup>3</sup>1<sup>st</sup> degree Specialist in Dermatology, Camaguey, Cuba  
 Christopher Esema<sup>4</sup> <sup>4</sup>MBBS Bachelor on Medicine and Surgery, Nigeria  
 Ashfaq Ahmad<sup>5</sup> <sup>5</sup>Pharmacist, Pakistan

**Abstract**

Liquenscrofulosorum, also known as tuberculosis cutis lichenoides, is a rare tuberculid that presents as lichenoid eruptions of minute papule, is an uncommon disease and easily misdiagnosed. The lesions are usually asymptomatic, closely grouped, skin colored to reddish-brown papules, often perifollicular. The eruption usually is associated with strongly positive tuberculin reaction. Diagnosis of the lesions can be difficult, as they resemble many other dermatological conditions that are often primarily considered. We report a case of lichen scrofulosorum in an adult male with a florid medical history. He responded promptly to antitubercular therapy with a complete clearance of the lesions after one month.

**Keywords**

Lichen Scrofulosorum; Tuberculid; Antitubercular Therapy

**Background**

This case highlights the uncommon, easily mis diagnosed but readily treatable case of lichen scrofulosorum.

**Introduction**

Liquen scrofulosorum., also known as tuberculosis cutis lichenoides, is a rare tuberculid that presents as lichenoid eruptions of minute papule, is an uncommon disease and easily misdiagnosed. The lesions are usually asymptomatic, closely grouped, skin colored to reddish-brown papules, often perifollicular.

**Case Presentation**

A 50 -year-old male presented with a history of itching skin rash for 1 month, accompanied by cough and shortness of breath more intense at night, he reports that the lesions started in the face and now is spread all over the body.

An examination revealed Vital signs: BP: 83/59 mmHg, Pulse: 128, Spo2: 93%

**HB:**7,8 g/dl **HGT:** 8,9 mmol/L

**Skin:** Generalized erythematous popular rash over the body from the face till the feet, with some lesions in plaques on the chest, not blister or vesicles.

**Mouth:** Whitish lesions in the oral mucous extended to the soft paladar.

**Chest:** A Skin biopsy was planned in consensus with the dermatologist (Figure 1-3).

**Investigations**

FBC, Sputum for GeneXpert, culture and cytology, Chest x rays, skin biopsy, CD4,V Load, Hepatitis B.

FBC CD4:9 Cryptococcal Antigen: Negative

WCC: 1,97 V Load: < 50 copies/ml

RCC: 4,00 Hepatitis B: Negative

HB:10,9 Sputum: GeneXpert: Mycobacterium TB not detected

Hematocrit:0,348 Culture: Normal respiratory flora isolated

Platelet: 750 Cytology: Mixed non-specific bacterial flora

Fungal organisms detected.

**Article Information**

DOI: 10.31021/ijcmc.20203150  
 Article Type: Case Report  
 Journal Type: Open Access  
 Volume: 3 Issue: 5  
 Manuscript ID: IJCMC-3-150  
 Publisher: Boffin Access Limited

Received Date: 09 March 2020  
 Accepted Date: 03April 2020  
 Published Date: 04 April 2020

**\*Corresponding author:**

**Yacquelynes Corona Hechavarria Y**  
 MSC in comprehensive care of women  
 Assistant Professor  
 University of Medical Sciences  
 Holguin Cuba  
 Tel:+27 728594914  
 E-mail: yaquelinch1970@gmail.com

**Citation:** Hechavarria YC, Maria TLR, Varona LO, Esema C, Ahmad A. Cutaneous Tuberculosis: Issues in the Diagnose. IntJ Clin Med Cases. 2020 April;3(5):150.

**Copyright:** © 2020 Hechavarria YC, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 international License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



**Figure 1:** Lesions on the chest



**Figure 4:** Lesions on the neck



**Figure 2:** Plaque lesions on the neck, shoulders and scalp



**Figure 5:** Lesions in the abdomen and chest



**Figure 3:** Lesions on the L shoulder, arm and back

### Skin Biopsy

The features are in keeping with Lichen Scrofulosorum. There is not atypia or invasive malignancy seen.

### Differential Diagnosis

- Lichen spinulosus
- Psoriasis
- Mucosis fungoid

### Treatment

Fluconazol 200 mg daily x14/7

Allergex 4mg tds

Vit C 1 g daily

Emulsifying ointment as soap

RHZE (150/75/400/275) 4 tablets daily x 2 months

RH (300/150) 2 tablets daily x 4 months.

His skin condition improved within 3 weeks of treatment, patient in the second phase of treatment and the following is his actual skin condition.

Antitubercular therapy started with conventional four first-line drugs (isoniazid, rifampin, pyrazinamide and ethambutol in daily dose regimen) for 2 months followed by two drugs (isoniazid and rifampin) for 4 months. His constitutional symptoms improved within 2 weeks of starting antitubercular therapy, and skin lesions subsided completely within 2 months. The below pictures revealed the improvement after 1 month of treatment. (Figure 4-8).

### Discussion

The tuberculids are a form of cutaneous tuberculosis caused by hypersensitivity reactions to *M tuberculosis*. The concept of tuberculid was introduced by Darier [1] in 1896. In contrast to 'true' cutaneous tuberculosis, properties of the tuberculids were explained



**Figure 6:** Lesions on the back



**Figure 7:** Lesions on the R arm



**Figure 8:** Lesions on the chest and abdomen

by a hypersensitivity response to mycobacteria or their fragments released from a different site of manifest or past tuberculous infection. Key features of tuberculids include a strongly positive tuberculin skin test, evidence of concomitant manifest or past tuberculosis and prompt response to ATT. They are classified into three types: (1) Papulonectrotic tuberculid, (2) erythema induratum of Bazin and (3) LS.

Papulonecrotictuberculid and LS represent true hypersensitivity reactions rather than the result of a local cutaneous tuberculosis

infection. LS is a rare tuberculid, initially described by Hebra[2] in 1860. LS is usually seen in children and young adults suffering from systemic tuberculosis, either pulmonary or extrapulmonary, and very rarely after BCG vaccination [3]. Clinically, LS is characterised by tiny, skin coloured, perifollicular papules in groups having a smooth surface but occasionally spiny projections with fine scales may be seen. The lesions reveal non-caseating, epithelioid cell granulomas in upper dermis and around dermal appendages. Tubercle bacilli are almost never seen in the histology specimen, neither can they be cultured. However, rarely, antigen of *M tuberculosis* has been demonstrated in papulonectrotic tuberculid, another type of more frequently seen tuberculid [4]. Diagnosis of LS mainly lies on histopathology, tuberculin skin testing and evidence of systemic tuberculosis in the body. Treatment of LS is the same as that for systemic tuberculosis.

In a study by Varshneyet al.[5] the overall incidence of cutaneous tuberculosis was 0.7% (131 of 18 720 outpatients). The most common variants seen were scrofuloderma (36.5%), lupus vulgaris (31%), tuberculous verruca cutis (12.9%), LS (11.4%), papulonectrotic tuberculids (3.8%), erythema nodosum (2.2%) and erythema induratum of Bazin (1.5%). Cutaneous tuberculosis may also be a direct manifestation of underlying tuberculosis as seen in the case reported by Al Zayyaniet al. [6] in which chronic tuberculous epididymo-orchitis presented as scrotal ulcers. Among the three tuberculids, the incidence of LS was found to be lowest (2%) in a large study conducted in Hong Kong [7]. Singhalet al. [8-12] studied 39 cases of LS, of which 72% had an underlying focus of tuberculosis while 28% had no identifiable focus of tuberculosis.

## References

1. Darier MJ. Des tuberculidescutanees. Arch DermatolSyph. 1896;7:1431-1436.
2. Hebra F. Lichen scrofulosorum. In: Fagge CH, Pye-Smoth PH, editors., eds. Diseases of the skin. Vol 2 London: New Sydenham Society. 1868; 58.
3. Kumaran MS, Dogra S, Kaur I. Lichen scrofulosorum in a patient with lepromatous leprosy after BCG immunotherapy. Lepr Rev. 2005;76:170-174.
4. Arora SK, Kumar B, Sehgal S. Development of a polymerase chain reaction dot-blotting system for detecting cutaneous tuberculosis. Br J Dermatol. 2000;142:72-76.
5. Varshney A, Goyal T. Incidence of various clinico-morphological variants of cutaneous tuberculosis and HIV concurrence: a study from the Indian subcontinent. Ann Saudi Med. 2011;31:134-139.
6. AlZayyani NR, Wani AM, AlMiamini W. Chronic epididymo-orchitis and scrotal ulcers. BMJ Case Rep. 2011;bcr0320102825.
7. Chang LY, Lo KK. Cutaneous tuberculosis in Hong Kong: a ten year retrospective study. Int J Dermat. 1995;34:26-29.
8. Singhal A, Bhattacharya SN. Lichen scrofulosorum: a prospective study of 39 patients. Int J Dermatol. 2005;44:489-493.
9. Lichen scrofulosorum presenting as pyrexia of unknown origin. J Coll Physicians Surg Pak. 2014.
10. Simultaneous occurrence of papulonectrotictuberculid and lichen scrofulosorum associated with mediastinal tuberculous lymphadenitis.
11. Simultaneous occurrence of papulonectrotictuberculid and lichen scrofulosorum associated with mediastinal tuberculous lymphadenitis. Int J Dermatol. 2019.
12. Cutaneous tuberculosis: A great imitator. ClinDermatol. 2019.