

Case Report

Lupus Vulgaris in tattoo mark is a rare Presentation

Rajendra Saugat^{1*}, Chandra Sekher Modi², Omprakash Suthar², Manak Gujrani¹

¹Department of pulmonary Medicine, S P Medical College, Bikaner, Rajasthan, India.

²Department of District Tuberculosis, Bikaner, Rajasthan, India.

Correspondence Address: *Rajendra Saugat, Department of pulmonary Medicine, S P Medical College, Bikaner, Rajasthan, India.

Abstract

The emphasized of the skin TB in tattoo mark, various other researchers have found that disease like lupus vulgaris caused by M. Tuberculosis can be induced by tattoo making. With every needle prick for tattoo making is an invitation for blood-born other serious infections such as AIDS, Hepatitis B, Hepatitis C, tetanus, syphilis, skin TB (lupus vulgaris), in Indian subcontinent and south Africa the lupus vulgaris most common form of cutaneous TB in adults. Even despite of commonly found tuberculosis in large population and poor countries such as India and China where cutaneous outbreaks are rare (<0.1%).

Keywords: tattoo mark, Lupus vulgaris, skin Tuberculosis, India

Introduction

Several different types of skin TB exist. TB verrucosa cutis, Lupus vulgaris, Scrofuloderma, Miliary TB, Tuberculid, Cutaneous tuberculosis, especially Lupus Vulgaris, was described repeatedly in seventeenth and eighteenth centuries^{1, 2}. The word 'Lupus' was described by many authors earlier to describe lesions of cutaneous tuberculosis. Lupus vulgaris is the most common form of cutaneous TB in adults in the Indian subcontinent and South Africa³.

The word 'Lupus' meaning wolf was given to the lesion because of the ulcerating and devouring character of the lesion⁴. Lupus Vulgaris is a chronic and progressive form of cutaneous tuberculosis occurring in individuals with high degree of tuberculin sensitivity⁴. Trunk and lower extremities affects most commonly by the lupus

Vulgaris while in western countries^{5, 6, 7}. Even in countries such as India and China where all type of TB are commonly occurs, cutaneous outbreaks are rare (<0.1%). In the lesion apple-jelly nodule (small sharply defined reddish-brown lesions with a gelatinous consistency) present, Lesions persist for many years, and causes disfigurement and even sometimes skin cancer may develop.

Case Report

A 20 year boy comes in skin department with the complaints of itching, ulcer with little discharging from lesion, previously he had taken treatment for presenting lesion from various physician including dermatologist but he did not get much improvement in lesion. Interestingly 4 year earlier patient had history of tattoo at left arm after three years of tattoos patient

develop itching at tattoo site which was not responding to medication, gradually ulcer develop at tattoo site. Biopsy has been done from the edge of the skin lesion showed a typical tuberculous lesion comprising epithelioid cell granulomas with Langhans giant cells (figure-3). Other investigation are not remarkable, HIV HCV, HBV, negative x-Ray chest was normal, ESR 80mm in first hour.



Fig. 1

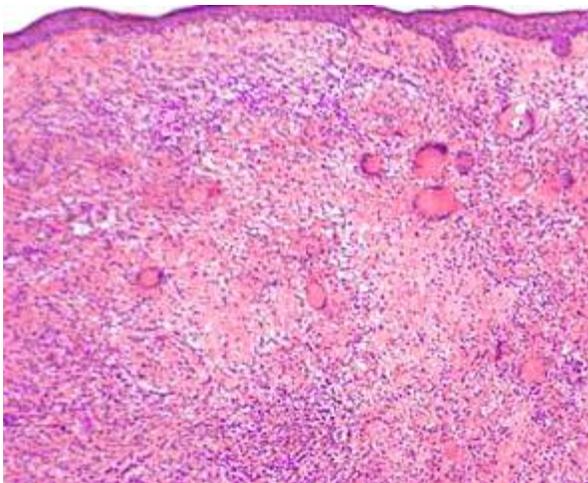


Fig. 2

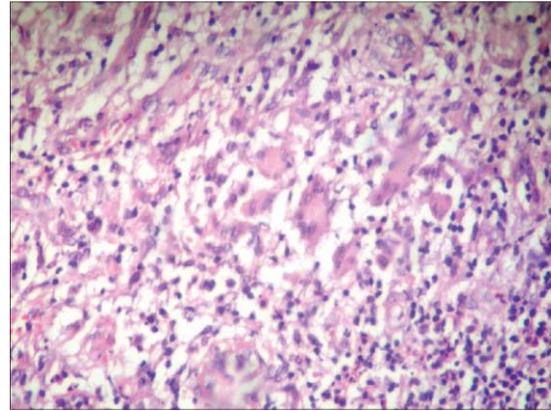


Fig. 3

Discussion

Many researchers have documented that disease such as lupus vulgaris caused by *M. Tuberculosis* bacteria can be induced by a tattoo procedure⁸. Lupus vulgaris (skin TB) is caused by hematogenous, lymphatic, or contiguous spread from elsewhere in the body. Spontaneous involution may occur, and new lesions may arise within old scars (Figure1), it is a chronic, progressive, post-primary, paucibacillary form of cutaneoustuberculosis. It can also arise after exogenous inoculation or some time it is a complication of (BCG) *Bacillus Calmette-Guérin* vaccination. Active lupus vulgaris frequently reappears in scar tissue. Tuberculosis chancre develops in the lesion after direct mycobacterial infection of the skin or mucous membranes from an outside source, results in an initial lesion (tuberculosis chancre) about 2-4 week of mycobacterial infection, mycobacteria enter in the broken skin. Every prick is an invitation for acquiring various other serious blood-born infection with tattoo making such as AIDS, Hepatitis B, Hepatitis C, syphilis, tuberculosis and neurotoxic diseases such as tetanus⁹ and contamination¹⁰. Tattoos can also cause chronic skin disease such as allergic dermatitis, sarcoid, photosensitivity reactions, keloid scarring, psoriasis, and malignancy (benign or malignant tumors) occur insidiously in up to 8%, malignancy such as Squamous cell and basal cell

carcinomas or sarcomas of patients may be confused with renewed activity of the lupus itself. Tattoo ink contains pigment in the ink they are small metal fibers such as (iron oxide). Intense burning pain occurs during MRI procedure due to metal fiber (iron oxide). Those medical institutions are aware about this pigmentation in tattoo or people with tattoos they refuse to perform MRI. While the MRI is an important diagnostic procedure and the burning pain during MRI should not be taken lightly. Inoculation of mycobacterium leprosy over the sites of tattooing and vaccination scar mark were reported and the first description of the pseudo-koebner phenomenon in leprosy, as have reports of leprosy lesions developing in a surgeon after operating upon a lepromatous leprosy patient^{11, 12}. The differential diagnoses to be considered in the early stages are leprosy, sarcoidosis, lymphocytoma, Spitz naevus and lupus erythematosus and in older patient's syphilis must be excluded.

Treatment

Skin Tuberculosis is a less serious infection; patients of lupus vulgaris (Skin TB) must be put on DOTS or daily therapy.

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