

# Lupus Vulgaris Involving Both Inguinal Regions: A Case of Autoinoculation

RITA VIPUL VORA<sup>1</sup>, NILOFAR GULAMSHA DIWAN<sup>2</sup>, NIDHI BHIMJIBHAI JIVANI<sup>3</sup>, ROCHIT RAJESH SINGHAL<sup>4</sup>

**Keywords:** Giant cells, Granulomas, Montoux test, Tuberculosis

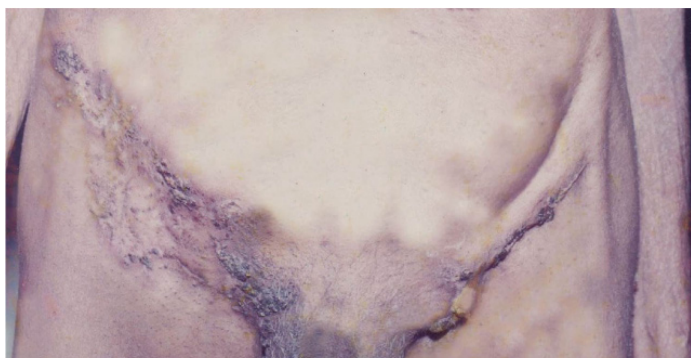
A 70-year-old male, farmer developed reddish brown verrucous lesion over left inguinal region since 7 years and almost similar lesion was present over right inguinal region since 4 years. No systemic symptoms like cough, fever, weight loss or dyspnoea were present. There was no past or family history of tuberculosis. On cutaneous examination, there was a brownish plaque involving whole right inguinal region with central area of atrophy and hyperkeratotic border at periphery, whereas lesion over other side was hyperkeratotic and involving medial two third of left inguinal region [Table/Fig-1]. Left inguinal group of lymph nodes were enlarged and palpable. Other lymph nodes were normal.

Montoux Test was positive. X-Ray chest was normal. ESR was high (65mm/hr) and lymphocytosis was present. Routine haematological and biochemical investigations were normal. HIV by ELISA Method was negative. Histopathological examination was suggesting lupus vulgaris showing tuberculoid granuloma composed of epithelioid

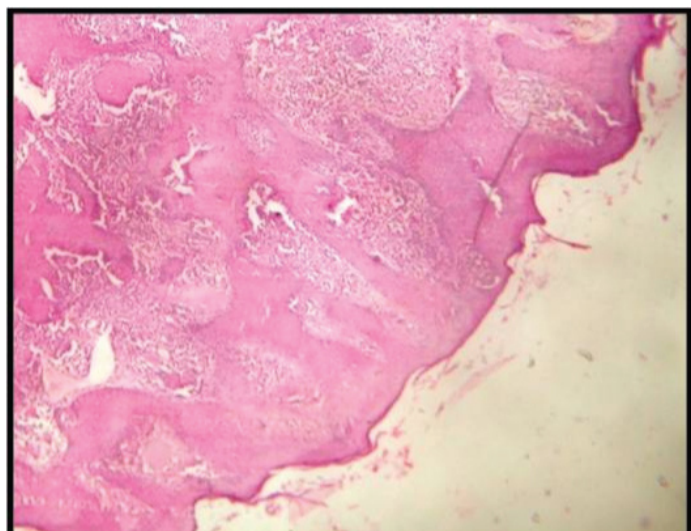
cells, Langhans type of giant cells and lymphocytic infiltration in upper dermis. With atrophy of epidermis [Table/Fig-2,3]. Patient was given antituberculous treatment but was lost on follow-up.

Tuberculosis (TB) is a very common disease worldwide, especially in developing countries. Cutaneous TB can be classified into inoculation TB, secondary TB, haematogenous TB and eruptive TB. More recently, it has been suggested that a useful concept is the mycobacterial load and that TB can be classified into multibacillary forms where there are abundant mycobacteria (e.g., scrofuloderma, tuberculous chancre and acute miliary tuberculosis) and paucibacillary forms where mycobacteria are difficult to isolate (e.g., lupus vulgaris, TB verrucosa cutis) [1]. Pyogenic infection of the gluteal region is also common in India and the breach in the integrity of the skin can serve as a portal of entry for the Acid-fast bacilli (AFB).

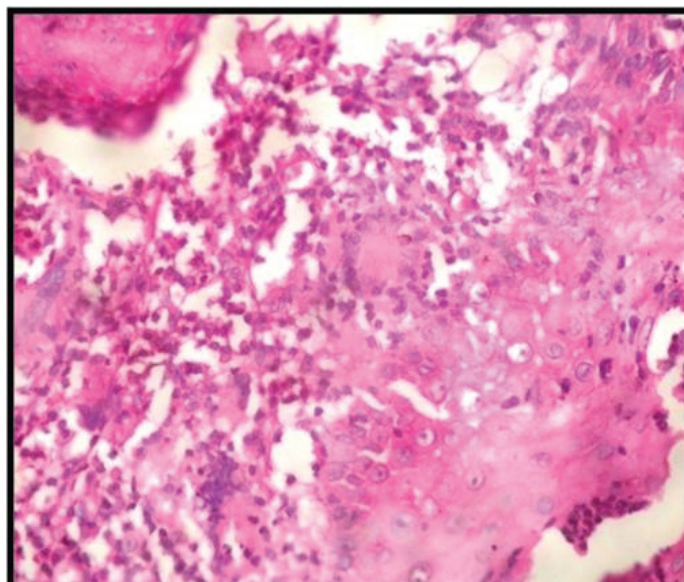
Lupus vulgaris and scrofuloderma are the oldest forms of cutaneous TB described in the medical literature and were known as the king's evil [2]. The word 'Lupus', meaning wolf, was given to the lesion because of the ulcerating and devouring character of the lesion [3]. Lupus vulgaris is a form of reinfection TB of the skin occurring in patients with moderate to high degree of immunity, originating from an underlying TB focus of the skin. However, it may also result through exogenous inoculation. Lupus vulgaris at the site of BCG vaccination has also been reported [1]. Lupus vulgaris is the most common form of cutaneous TB in most of the studies from India. It occurs in individuals with immunity produced by previous tuberculous. Infection most commonly affects the trunk and lower extremities while face is most common site of involvement among Western population.



**[Table/Fig-1]:** Brownish plaque involving whole right inguinal region with central area of atrophy and hyperkeratotic border at periphery and hyperkeratotic over medial two third of left inguinal region.



**[Table/Fig-2]:** Atrophy of epidermis (H&E 100 X).



**[Table/Fig-3]:** Tuberculoid granuloma composed of epithelioid cells, Langhans type of giant cells and lymphocytic infiltration in upper dermis (H&E 400 X).

It initially presents as a tiny, red-brown coloured papulonodular lesion later on forming a plaque with peripheral enlargement of the existing lesion. Healing and scarring in one area and active disease in another area is seen characteristically. Histopathology shows tuberculoid granulomas composed of lymphocytes, plasma cells, epithelioid cells and giant cells, scant or absent central caseation, in the superficial dermis. The epidermis is usually hyperplastic, but may be atrophic or ulcerated. Tubercle bacilli are difficult to demonstrate. Histologic examination is mandatory and in some cases sparse AFB can be demonstrated. Tuberculin test is helpful as it is strongly positive. Special test like Polymerase Chain Reaction (PCR) for TB can be done to substantiate the diagnosis or wherever the histopathology is inconclusive [1].

Wound infection due to *M. tuberculosis* is not so commonly seen [4]; Presentation of lupus vulgaris as a mirror image over inguinal region is also unique. The presentation is suggestive of autoinoculation

and also the potential of infectivity to the other areas of the body [5]. With the differential in mind by the physician, avoidance of ignorance among patients regarding disease and adherence to proper anti-tuberculous treatment can help in cure of the condition. Here, we present a case of lupus vulgaris with bilateral inguinal involvement which suggests autoinoculation.

## REFERENCES

- [1] Yates V.M. Mycobacterial infections. In Rook's Textbook of Dermatology. 8<sup>th</sup> ed. Tony B, Stephen B, Neil C, Christopher G, Wiley-Blackwell 2010;31:10-29.
- [2] Sierra X. Historia de la tuberculosis cutánea. *Piel*. 1995;10:118-26.
- [3] Findlay GH. Bacterial infections. In: The dermatology of Bacterial infections. 1<sup>st</sup> ed. Ed. Findlay GH, Blackwell Scientific, London; 1987. Pp.71-83.
- [4] Dalton HP, Archer OL, Sliftein M, Harris RC, Stone LL, Sosnowski KM, et al. Wound and Skin Specimen. In: Dalton HP, Nottebart HC. editors. Interpretive Medical Microbiology. New York: Churchill Livingstone, 1986: Pp. 698.
- [5] Sehgal VN, Chaudhry AK, Gupta R. Autoinoculation lupus vulgaris of the perineum. *Genitourin Med*. 1991;67:348-49.

### PARTICULARS OF CONTRIBUTORS:

1. Head of Department and Professor, Department of Skin and VD, Shree Krishna Hospital, Karamsad, Anand, Gujarat, India.
2. Resident, Department of Skin and VD, Shree Krishna Hospital, Karamsad, Anand, Gujarat, India.
3. Resident, Department of Skin and VD, Shree Krishna Hospital, Karamsad, Anand, Gujarat, India.
4. Resident, Department of Skin and VD, Shree Krishna Hospital, Karamsad, Anand, Gujarat, India.

### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Rita Vipul Vora,  
Skin OPD-111, Shree Krishna Hospital, Karamsad, Anand-388325, Gujarat, India.  
E-mail: ritavv@charutarhealth.org

Date of Submission: **Feb 10, 2016**

Date of Peer Review: **Jun 09, 2016**

Date of Acceptance: **Aug 04, 2016**

Date of Publishing: **Nov 01, 2016**

FINANCIAL OR OTHER COMPETING INTERESTS: None.