



Cutaneous tuberculosis (lupus vulgaris-type)

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ARTICLE INFO

Article history:

Received 21 December 2021

Received in revised form 7 January 2022

Accepted 7 January 2022

Available online xxxx

Keywords:

Cutaneous tuberculosis

Lupus vulgaris

South Africa

A 47-year-old female presented with a 15-year history of an enlarging, indurated plaque on the face (Fig. 1). The plaque resulted in ectropion of the left lower eyelid, causing conjunctivitis. She was previously diagnosed and treated unsuccessfully for sarcoidosis (at another institution). A skin biopsy of the facial plaque revealed non-necrotizing granulomatous inflammation. The Ziehl-Neelson stain revealed acid-fast bacilli. Tissue culture grew *Mycobacterium tuberculosis*, demonstrating sensitivity to rifampin and isoniazid. No evidence of pulmonary or other extrapulmonary tuberculosis was found. She was HIV negative and had no other medical history of note. The patient was diagnosed with the lupus vulgaris (LV) form of cutaneous tuberculosis (TB). She was subsequently treated with rifampin, isoniazid, pyrazinamide, and ethambutol for two months, followed by rifampin and isoniazid for four months. The plaque resolved with residual scarring and dyspigmentation (Fig. 2). The ectropion improved with resolution of the conjunctivitis.

Cutaneous TB accounts for only 1–2% of tuberculosis cases, although the incidence may be more significant in high prevalence areas such as South Africa [1]. LV is the most common form of cutaneous TB reported in adults [2,3]. Facial LV is usually due to the hematogenous spread and runs a chronic, progressive, and scarring course [1]. Other modes of spread to the skin from an endogenous focus of TB include lymphatic or contiguous extension from elsewhere in the body [1]. Where an endogenous focus of TB is not apparent as in this case, LV is most likely due to direct inoculation from an exogenous source [1]. This patient presented with plaque-type LV. Other clinical variants of LV include vegetative, tumor, papular or nodular, and ulcerative forms [4]. Squamous cell carcinoma, and less often basal cell carcinoma and melanoma may complicate chronic LV [3,5]. Cutaneous tuberculosis should be considered in the differential diagnosis of infiltrative facial plaques, and long-term monitoring for malignant transformation developing in the scar is essential [2].

Abbreviations: LV, lupus vulgaris; TB, tuberculosis

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<https://doi.org/10.1016/j.idcr.2022.e01394>

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Fig. 1. Before treatment – Indurated and scarring facial plaque in a middle-aged woman.



Fig. 2. After treatment – Improvement of facial plaque after six months of standard antituberculosis treatment – This case highlights the scarring potential of chronic lupus vulgaris as well as the dramatic improvement after treatment with antituberculosis drugs.

Ethical approval

Stellenbosch University Human Research Ethics Council (HREC) approved. Stellenbosch University HREC reference number: C21/05/014

Consent

Informed consent was signed by the patient.

Funding

No funding for research.

CRediT authorship contribution statement

J Gallo: Conceptualization, Data collection and Writing; **B Tod:** Conceptualization and Writing; **S Claasens:** Conceptualization and Data collection; **W Visser:** Conceptualization and Reviewing; **J Schneider:** Pathology of the case and Reviewing; **Henry Jordaan:** Reviewing

Declaration of Competing Interest

None.

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