

Introduction

Tuberculosis (TBC) is a severe disease caused by *Mycobacterium tuberculosis* infection, which usually affects lungs, but can also occur in extrapulmonary sites. Recent epidemiological data suggest an increasing incidence of this disease, that is re-emerging due to migration flows, arising global spread of HIV, frequent use of immunosuppressive drugs in medical practice and the widespread phenomenon of multidrug-resistance. Lupus vulgaris is the most common form of cutaneous tuberculosis in Europe and represents about 1-2% of extrapulmonary forms. We describe the case of a Caucasian woman who was diagnosed with lupus vulgaris, both clinically and histopathologically.

Case report

A 57-year-old woman came to our outpatient service. Clinical examination revealed the presence of micropapules converging in a not well-demarcated, broad (40x35 mm), itchy plaque of reddish color, localized on the left half of the chin region. A similar but smaller plaque (14x10 mm) was observed on the contralateral side. Sporadic micropustules were present within the plaques [Fig.1]. At diascopy, micropapules of apple-jelly colour were seen. Neither general pathological conditions nor regional lymphadenopathy were found at general objective examination. Our patient was not immunosuppressed and HIV serology was negative.

Fig.1



No history of pulmonary or extrapulmonary visceral tuberculosis was reported. She had not received BCG vaccine. She reported that the aforementioned picture had begun one year ago with the appearance of an erythematous papule of a few millimeters in diameter, that had been treated with topical antibiotics and steroids and oral minocycline, without improvement. A skin biopsy was then performed. Histological examination revealed granulomatous infiltration characterized by confluent epithelioid micronodules with few multinucleated giant cells Langhans-type without necrosis, surrounded by a mainly lymphocytic infiltration and few plasma cells; Ziehl-Neelsen stain was negative [Fig.2].

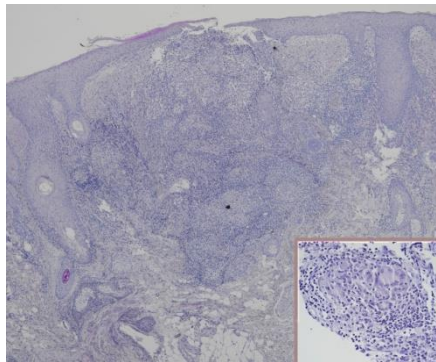


Fig.2

Polymerase chain reaction for the identification of *M. tuberculosis* was not performed. Chest X-ray, abdominal ultrasound, sputum examination and urinalysis were normal. On the basis of the clinical and histological picture, we diagnosed "lupus vulgaris" and prescribed rifampicin 600 mg and isoniazid 300 mg/day. Considerable improvement was observed at a 4 weeks follow-up and remission, with slight cutaneous hyperchromia, after 12 weeks of treatment [Fig. 3]. We prolonged the treatment for another month to reduce the risk of relapses. No relapses were observed at 6 months follow-up.

Discussion

Clinical presentation of lupus vulgaris is variable and depends on pathogenicity of the microorganism, route of infection (exogenous or endogenous) and patient's immune status. Four clinical variants have been identified: plaque, hypertrophic, vegetating and ulcerative type.



Fig.3

The plaque form is the most common. Mutilation, scar retractions and squamous cell carcinoma are the main complications of lupus vulgaris, and for these reasons early diagnosis and correct management are particularly important. Lupus vulgaris constitutes a diagnostic challenge for dermatologists due to its paucibacillary nature. Differential diagnosis includes several skin diseases (i.e. mycobacteriosis, sarcoidosis, granulomatous rosacea, papular syphiloderma, chronic granulomatous disease, lupoid rosacea or hematologic malignancy). Due to non-specific symptoms and clinical presentation, diagnosis and management are often delayed. This happens especially in countries where the incidence of TBC is very low, and the disease is not well known. Diagnosis is based on clinical and histological presentation and is confirmed by positive *M. tuberculosis* culture. According to WHO recommendations, cutaneous TBC should be treated with a regimen including isoniazid, rifampicin, pyrazinamide and ethambutol for 2 months, then with isoniazid and rifampicin for 4 months. In our case we performed a four month therapy with isoniazid and rifampicin only. Successive follow-up did not show signs of relapse six months after the end of therapy and complete *restitutio ad integrum* was achieved.

References

1. Striegel AK et al. *Two cases of lupus vulgaris in childhood and review of the clinical challenges*. *Klin Padiatr*. 2014; 226: 40-3.
2. Charifa A, Oakley AM. *Tuberculosis, Cutaneous*. [Updated 2018 Feb 12]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2018. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK482220/>