

Multifocal Lupus Vulgaris: Case Report

Multifokal Lupus Vulgaris

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ABSTRACT Cutaneous tuberculosis is a rare form of extrapulmonary tuberculosis and primarily seen in the developing countries. Lupus vulgaris is a chronic progressive form of cutaneous tuberculosis that occurs in individuals with a moderate to high degree of immunity, and usually presents as a solitary lesion on the head and the neck. In this paper, lupus vulgaris is reported in a 29-year-old woman who had a 7-year history of plaques first beginning on her left arm and then spreading to her trunk, back and left retroauricular area. The diagnosis of lupus vulgaris was based on clinical, histopathological findings and purified protein derivative (PPD) positivity. No acid-fast bacilli were detected by Ziehl-Neelsen staining. Culture of biopsy specimens and polymerase chain reaction were negative for *M. tuberculosis*. She had antituberculous therapy with three drugs and her lesions responded rapidly to this therapy.

Key Words: Lupus vulgaris; tuberculosis

ÖZET Cilt tüberkülozu başlıca gelişen ülkelerde görülen ekstrapulmoner tüberkülozun nadir bir şeklidir. Lupus vulgaris, orta ve yüksek derecede bağışıklığı olan kişilerde görülen ve genellikle baş ve boyunda tek bir lezyon şeklinde ortaya çıkan, cilt tüberkülozunun kronik ilerleyici bir şeklidir. Bu yazıda, 7 yıl önce sol kolunda başlayan ve sırta, bele ve sol kulak arkasına yayılan plak öyküsü olan 29 yaşında bir lupus vulgaris olgusu sunulmaktadır. Lupus vulgaris tanısı klinik, histopatolojik bulgulara ve pürifiye protein derivesi (PPD) pozitifliğine dayanılarak koyuldu. Ziehl-Neelsen boyaması ile asit-fast bakteri saptanmadı. Biyopsi örneklerinin kültürü ve polimeraz zincir reaksiyonu *M. tuberculosis* için negatifti. Hastaya üç ilaçla antitüberküloz tedavi uygulandı ve lezyonları hızla yanıt verdi.

Anahtar Kelimeler: Lupus vulgaris; tüberküloz

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Lupus vulgaris (LV) is the most common, post-primary; highly destructive form of cutaneous tuberculosis in a patient with intact immunity. Women are twice as likely to be affected as men. LV may appear at sites of inoculation, in scrofuloderma scars, after Bacille Calmette-Guerin (BCG) vaccination, or most commonly at distant sites from the initial infectious focus. LV is associated with moderately high immunity to tuberculosis; most patients will have a positive tuberculin test. In approximately 90% of the patients, the head and neck are involved. It usually presents as a solitary lesion. In very rare instances, LV may present with multiple lesions.¹⁻⁶ Here, we describe a case of multifocal lupus vulgaris.

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CASE REPORT

A 29-year-old female was referred to our clinic with the complaint of reddish-violet colored large plaques on her left arm, trunk, back, and left retroauricular area. The lesions had appeared first on the left arm 7 years earlier and had spread slowly on the trunk, back and left retroauricular area. She did not have any systemic complaints.

Skin examination revealed indurate, reddish-violet colored large plaques on her trunk, arm, back and retroauricular area (Figure 1, 2). These lesions measured 2-10 cm in diameter and were well demarcated. Diascopic examination showed an apple-jelly appearance. Purified protein derivative (PPD) test showed an intense reaction.

Chest X-ray did not reveal any abnormality. The only abnormal test finding was hemoglobin of 8.9 g/dl. This was interpreted as a coincidental unrelated iron-deficiency. Posteroanterior chest radi-



FIGURE 1: Reddish-violet colored large plaque at the patient's back. (See for colored form <http://tipbilimleri.turkiyeklinikleri.com/>)



FIGURE 2: Reddish-violet colored large plaque on the patient's arm. (See for colored form <http://tipbilimleri.turkiyeklinikleri.com/>)

ography and tomography did not reveal any signs of active or passed on tuberculosis. No acid-fast bacilli were detected by Ziehl-Neelsen staining. Biopsy specimens were taken from plaques. Culture of biopsy specimens and polymerase chain reaction were negative for *M. tuberculosis*. Histopathology of biopsy specimens showed typical tuberculoid granulomas with no caseation in the dermis (Figure 3, 4).

A diagnosis of LV was made on the basis of clinical and histopathological findings, and PPD positivity. Antituberculous therapy with three drugs; isoniazid (5 mg/kg), rifampin (10 mg/kg), ethambutol (15 mg/kg) was initiated. Her cutaneous lesions improved dramatically after two months and were completely regressed after six months (Figure 5, 6).

DISCUSSION

The recent increase in the incidence of tuberculosis, especially due to HIV infections has led to the return of extrapulmonary forms of this disease. Cutaneous manifestations of the infection are found in about 0.1% of dermatology patients. Skin tuberculosis is still rarely seen in immunocompetent hosts.^{6,7} Tuberculosis of the skin is caused by *M. tuberculosis*, *M. bovis* and under certain conditions, the BCG, an attenuated strain of *M. bovis*. The two most frequent forms of skin tuberculosis are LV and scrofuloderma.^{3,8}

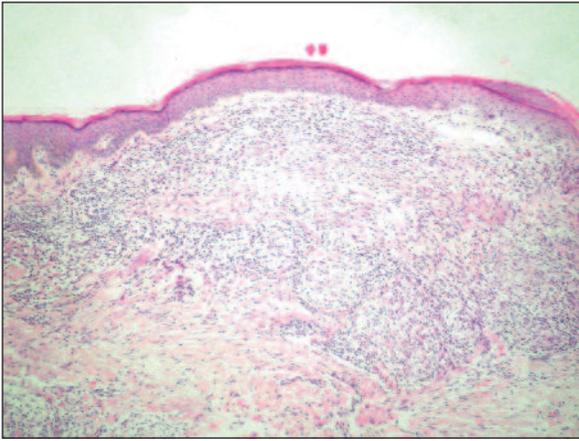


FIGURE 3: Histopathology of the lesioned skin showed typical tuberculoid granulomas (HE,x40).

(See for colored form <http://tipbilimleri.turkiyeklinikleri.com/>)

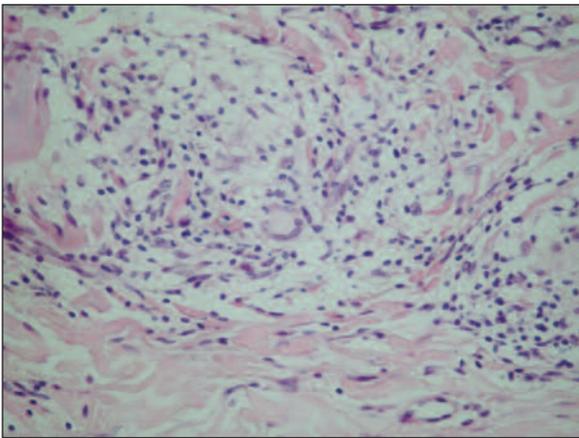


FIGURE 4: Histopathology of the lesioned skin showed typical tuberculoid granulomas (See for colored form <http://tipbilimleri.turkiyeklinikleri.com/>)(See for colored from <http://tipbilimleri.turkiyeklinikleri.com/>)

LV typically affects the head and the neck, and less commonly, the trunk and the scalp. In very rare instances, LV, as in our patient; may present with multiple lesions affecting the face, trunk and extremities. The lower extremities, especially the buttocks, are more often involved in the tropics and subtropics.⁴ It has been estimated that the diagnosis of LV is made about 5 years after the lesion first appears.¹ Cutaneous tuberculosis has considerable morphologic variability and is often confused with other cutaneous disorders and some granulomatous processes of the skin. The differential diagnosis of LV includes

sarcoidosis, lymphocytoma cutis, discoid lupus erythematosus, tertiary syphilis, leprosy, blastomycosis, lupoid leishmaniasis, and chronic vegetative pyodermas.^{3,5}

Cutaneous tuberculosis is diagnosed with medical history, clinical, histological findings, positivity of PPD, Ziehl-Neelsen staining, culture and polymerase chain reaction results.^{2-6,8} A diagnosis of LV in our patient was based on clinical, histopathological findings and positivity of PPD.

According to World Health Organization recommendations, an antituberculous treatment regimen has an initial phase lasting 2 months, consisting usually of four drugs: Isoniazid (5 mg/kg), rifampin (10 mg/kg), ethambutol (15 mg/kg) and pyrazinamide (25 mg/kg). In the con-



FIGURE 5: The lesions' appearance on the patient's back after six months of therapy.

(See for colored form <http://tipbilimleri.turkiyeklinikleri.com/>)



FIGURE 6: The lesions' appearance on the patient's arm after six months of therapy.

(See for colored form <http://tipbilimleri.turkiyeklinikleri.com/>)

tinuation phase, lasting 4-6 months, two drugs (isoniazid and ethambutol) are necessary. In patients with extrapulmonary tuberculosis with paucibacillary lesions, short course chemotherapy regimens with three drugs in the initial phase and two drugs in the continuation phase are of proven efficacy.⁹ Since our patient did not have pulmonary tuberculosis, antituberculous therapy with three drugs (isoniazid, rifampin and ethambutol) was initiated. Her cutaneous lesions improved dramatically after two months and were completely regressed after six months. The early diagnosis and adequate treatment of patients with LV is very important to prevent complications.

LV is generally underdiagnosed due to lack of awareness of the disease. Multiple lesions are rarely reported in LV and may be confused especially with sarcoidosis when confronted with non-specific granulomatous histology. Because cutaneous tuberculosis and immune reaction to mycobacteria are still common in developing countries, it remains an important diagnostic possibility in patients with chronic cutaneous granulomatous disease.

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