Journal of Pakistan Association of Dermatologists.2023;**33(2)**:741-744.

Case Report

Psoriasiform lupus vulgaris: A rare unusual presentation with articles review

Dooha K. ALHamdi, Khalil I. ALHamdi

Dermatology Unit, Department of Medicine, College of Medicine, University of Basrah, Iraq.

Abstract Although tuberculosis is endemic in our country, yet cutaneous TB is relatively rare. The most common type is lupus vulgaris that is usually presented as red brown plaque with central scaring. Psoriasiform lupus vulgaris is rarely encountered where it is difficult to diagnosed, overlooked and under estimated. Here in we reported a case of psoriasiform lupus vulgaris without central scaring as an unusual and rare presentation of lupus vulgaris in order to increase the clinical awareness of dermatologists to such mode of presentation. To the best our knowledge, this is the first case in our country.

Key words
Psoriasiform; Lupus vulgaris; Yellowish-white globules; Atypical; Dermoscopy.

Introduction

Cutaneous tuberculosis is infection of the skin with *Mycobacterium tuberculosis*, an acid- and alcohol-fast bacillus.[1] There are two types of cutaneous tuberculosis:

1- Exogenous exposure produces primarily the tuberculous chancre and TB verrucosa cutis.

2-Endogenous infection can lead to lupus vulgaris, scrofuloderma and millary TB.[1] Only 5% to 10% of infections with *M. tuberculosis* lead to clinical disease, because it is not particularly virulent microorganism; this bacterium has a worldwide distribution; but it is more prevalent in regions with a cold and humid climate and can also occur in the tropics. Lupus *vulgaris* is endogenous type of cutaneous TB that occurs in previously sensitized individuals with intact cell-mediated immunity, so there is strong positive delayed-type hypersensitivity reaction to tuberculin.[2] The incidence of cutaneous TB is higher in low-income countries and impoverished community, because it is parallels to that of pulmonary TB. The typical lesion of lupus vulgaris is a red–brown papulonodules that coalesce to form a plaque with an "apple-jelly" color on diascopy. As the plaque expands, central scarring often develops. Clinical presentations of lupus vulgaris include: (1) papulonodular; (2) plaque-type; (3) tumor-like; (4) vegetating; and (5) ulcerative.[2] The head and neck region are the most commonly affected sites, in particular the nose, cheeks and ear lobes.[2] Mucosa can also be involved. Dermoscopical examination of granulomatous skin lesions demonstrates yellow globules and telangiectasia. Yellowish background with well-focused telangiectasia has been described as typical of LV and correlate with the clinically appreciated "apple jelly sign".[3]

Here in we reported a case of psoriasiform lupus vulgaris without central scaring as an unusual and rare presentation of lupus vulgaris in order to increase the clinical awareness of dermatologists to such mode of presentations.

Address for correspondence
Dr. Dooha K. ALHamdi, MD, FABMS (D and V),
Lecturer of Dermatology, Department of Medicine,
College of Medicine, University of Basrah, Iraq.
Ph: 009647729227293
Email: doha.ismail@uobasrah.edu.iq

To the best our knowledge, this is the first case in our country.

Case Report

A 48-year-old female patient presented to dermatology department in Al- Basra teaching hospital with asymptomatic three psoriasiform plaques of variable sizes on left side of middle back for four months duration not responding to anti psoriatic topical drug therapy including topical potent steroid and calcipotriol with betamethasone dipropionate ointment. Family history for psoriasis or other chronic skin disease was negative with no chronic diseases or any drug use. On examination, the patient looked apparently healthy with no lymphadenopathy or organomegaly; the skin lesions were well-demarcated psoriasiform erythematous scaly plaques of variable sizes with no atrophy at its center, the scales were silvery white (**Figure 1)**. Dermoscopic examination of the lesions revealed yellowish- white globules with white scales on pinkish- red background with linear blood vessels. No dotted blood vessels were seen **(Figure 2)**, these finding raised the suspicion of granulomatous skin diseases like sarcoidosis, lupus vulgaris, leishmaniasis, granuloma annulare and cutaneous leprosy. Diascopic examination showed apple-jelly nodules, which made the lupus vulgaris at the top of the list, for the above-mentioned reasons and despite that, the patient looked normal with no other symptoms, we did chest X ray, which revealed apical opacities at the left lung. Skin biopsy was taken which showed acanthosis, pseudoepitheliomatous hyperplasia, dermal multiple tubercles, mainly lymphocytic infiltrates and langhans giant cells with no central caseation **(Figure 3)**. PCR examination of tissue specimen was positive, so the diagnosis of active pulmonary tuberculosis with cutaneous lupus vulgaris was made and the patient was referred to tuberculosis center with recommendation to start her with intensive anti TB regimen.

Discussion

Lupus vulgaris is an endogenous type of cutaneous tuberculosis, which affects the skin by direct extension, hematogenous, lymphatic spread from a tuberculous focus, reinfection or rarely after BCG vaccination.[1]

Figure 1 Clinical photo (author photo) showed well-demarcated erythematous plaques covered by white scales.

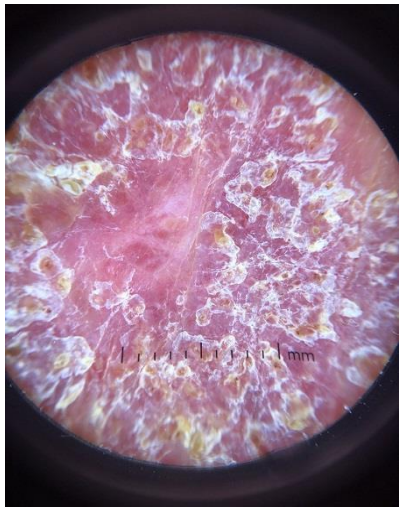

Figure 2 Dermoscopical examination (author photo) showed yellowish- white globules with white scales on pinkish- red background.

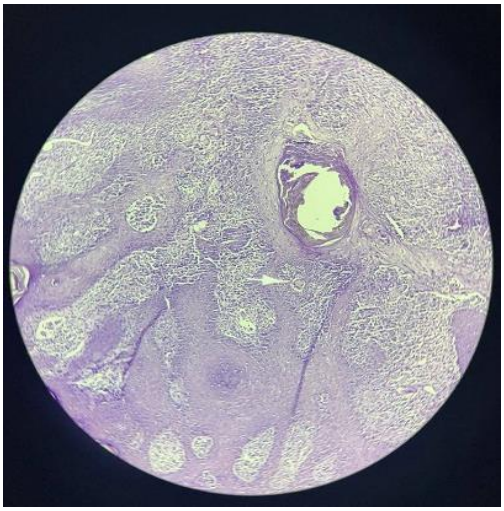

Figure 3 The histopathology of the lesion (author photo) revealed: acanthosis, pseudoepitheliomatous hyperplasia, multiple tubercles, mainly lymphocytic infiltrates and multinucleated giant cells.

It is typically presented as asymptomatic red–brown papulonodules that coalesce to each other forming plaque with an "apple-jelly" color on diascopy. The plaque expands peripherally with central scarring.[4-6] Many atypical presentations of lupus vulgaris had been reported previously. Rima G. *et al*. in 2020 reported a case of disseminated lupus vulgaris in immunocompetent female patient.[7] On another hand, Almagro M *et al*. in 2005 reported a case of metastatic tubercular abscesses in immunocompetent patient.[8] By reviewing literatures, we found that Robert M *et al*. reported a case of psoriasiform lupus vulgaris that had been misdiagnosed as psoriasis but without improvement, histopathological examination of the lesion revealed typical tuberculous granuloma. The patient was treated with anti TB drugs for 6 months duration, by which the lesions was remarkably improved.[9] In the present case, the lesion was atypical, psoriasiform with no central scaring and located at middle back, which is also unusual site for lupus vulgaris that mainly occurs at head and neck region.[2] Dermoscopic examination revealed yellowish- white globules and white scales with linear blood vessels, which is the findings of granulomatous skin disease (mostly lupus vulgaris. Diasopy finding also consistent with lupus vulgaris. Unresponsiveness of the lesions to antipsoriatic treatments, localization to only one area for months with the above mentioned findings raised the suspicion of granulomatous skin diseases especially lupus vulgaris, so we did chest x ray despite that the patient did not had any suspicious symptoms. The histopthological examination result was consistent with lupus vulgaris and the PCR was positive. We referred the patient to the tuberculosis center with request to start her on intensive anti TB regimen, because anti TB treatments are only available at this center in our country. To the best of our knowledge, this is the first case of psoriasiform lupus vulgaris in our country and possibly the region. The present case differs from that reported previously by absence of central scaring;[10] in addition, it is located at a typical site, which increases the difficulty of diagnosis. We thought that this mode of presentations mostly misdiagnosed or overlooked leading to delayed diagnosis and proper treatment as lupus vulgaris with its subsequent complications. Presenting such a case highlight the ignored rare presentation of skin diseases, that one should be aware of its presence.

Conclusion

Psoriasiform lupus vulgaris is a rare unusual presentation that should be kept in mind in any atypical localized chronic psoriatic lesions that was not responding to usual conventional psoriatic skin lesions. In addition, dermoscopical examination is helpful in diagnosis.

References

1. 1-Marcia R., Maria C. (2018) Mycobacterial Infections.in Jean L. Julie V. Lorenzo C. Dermatology (4th edition, 1475-1497). Elsevier.
2. Pai VV, Naveen KN, Athanikar SB, Dinesh US, Divyashree A, Gupta G. A clinico-histological study of Lupus vulgaris: A 3-year experience at a tertiary care centre. *Indian Dermatol Online J*. 2014;**5**:461–5.
3. Brasiello M, Zalaudek I, Ferrara G, Gourhant JY, Capoluongo P, Roma P, *et al*. Lupus vulgaris: A new look at an old symptom-The lupoma observed with dermoscopy. *Dermatology*. 2009;**218**:172–4.
4. K. Degitz, Mycobacterial infections, Braun-Falco's Dermatology, Springer, 3rd edition, 2009.
5. V. Ramesh, R. Makkar, N. Sood, and R. Batra. Lupus vulgaris postexanthematicus - A rare variant of lupus vulgaris with sarcoid-like histopathology. *Clin Exp Dermatol*. 2005;**30(2)**:189-90.
6. S. Khandur and B. S. N. Reddy. Lupus Vulgaris: unusual presentation over the face. *J Eur Acad Dermatol Venereol*. 2003;**17**: 706.

7. Gammoudi R, Lahouel M, Saidi W, Denguezli M. An atypical presentation of lupus vulgaris. *Indian J Dermatol Venereol Leprol*. 2020;**86**:573-6.
8. Almagro M, Del Pozo J, Rodríguez-Lozano J, Silva JG, Yebra-Pimentel MT, Fonseca E. Metastatic tuberculous abscesses in an immunocompetent patient. *Clin Exp Dermatol*. 2005;**30**:247-9.
9. Robert M., Harold D. psoriasiform lupus vulgaris. *Int J Dermatol*. 1970;**9**:273-7.
10. Reich A, Kobierzycka M, Cisło M, Schwartz RA, Szepietowski JC. Psoriasiform lupus vulgaris with 30 years duration. *Scand J Infect Dis*. 2006;**38(6-7)**:556-8.