Afghanistan Journal of Infectious Diseases
AJID
https://ajid.ghalib.edu.af/index.php/ajid
Vol. 2, No.1, January 2024, pp. 103-106

De novo Histoid Leprosy of face mimicking Lupus Miliaris Disseminatus Faciei: An uncommon presentation

Moin Ahmad Siddiqui[1*]

1. Assisstant professor, Department of dermatology, Era's lucknow medical college and hospital, Era university, lucknow, India

ARTICLE INFO

Type: Case Report
Received: 2023/11/15
Accepted: 2024/01/01

*Corresponding Author:
Moin Ahmad Siddiqui
Address: Assistant professor, Department of dermatology, Era's lucknow medical college and hospital, Era university, lucknow, India

moinahmad12@gmail.com

DOI:
https://doi.org/10.60141/AJID/V.2.I.1.11

ABSTRACT

Background: Background: Histoid leprosy is a rare variant of lepromatous leprosy with distinct clinical features and characteristic histopathology. It is diagnosed using classical histopathological findings and Fite staining, distinguishing it from dermatofibroma and neurofibroma using factor XIIIa and S100 on immunohistochemistry. A middle-aged female presented with facial lesions mimicking Lupus Miliaris Disseminatus Faciei (LMDF).

Case report: A 35-year-old female with facial lesions for two months, previously treated with oral isotretinoin for acne vulgaris, presented with multiple papules. Differential diagnoses included lupus miliaris disseminatus faciei (LMDF), multiple trichoepitheliomas, sarcoidosis, and post kala-azar dermal leishmaniasis (PKDL). A slit skin smear examination revealed numerous acid fast bacilli, longer than normal lepra bacilli, and tapering ends. A punch biopsy revealed a grenz zone, an atrophic epidermis, sheets of elongated epithelioid cells with histoid habitus, and an inflammatory infiltrate in the dermis. A Fite stain was positive, confirming histoid leprosy. Multidrug treatment was initiated with rifampicin, clofazimine, and dapsone. LMDF is a rare dermatoses with asymptomatic papular eruptions over the face around the eyelids and epitheloid granuloma with caseous necrosis in the dermis.

Conclusion: Several atypical presentations of histoid leprosy have already been described like Erythema nodosum like and figurate lesions. But LMDF like lesions is a rare presentation and it should be added to various morphological presentations of histoid leprosy.

Kewwords: Hstoid, Leprosy, LMDF, Denovo, Face.

To cite this article: Siddiqui MA. De novo Histoid Leprosy of face mimicking Lupus Miliaris Disseminatus Faciei: An uncommon presentation. Afghanistan journal of infectious diseases. 2024 Jan;1(2):103–106. https://doi.org/10.60141/AJID/V.2.I.1.11

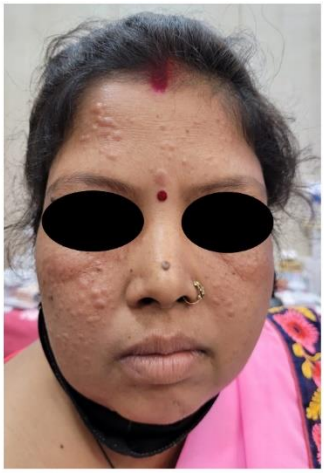
1. Introduction

Histoid leprosy is a rare and uncommon variant of lepromatous leprosy. It presents with distinct clinical features and has characteristic histopathology. The most commonly implicated factor is a history of dapsone monotherapy prior to multidrug treatment. Denovo histoid leprosy is a rarer form of histoid leprosy in which no aetiology can be determined. We present here a case of a middle aged female who presented with facial lesions of histoid leprosy mimicking as Lupus Miliaris Disseminatus Faciei (LMDF).

2. Case report

A 35-years-old female presented to our dermatology out patient department with complaints of rapid development of several facial lesions for 2 months, having been previously treated with oral isotretinoin for acne vulgaris with no improvement. On cutaneous examination, multiple skin-colored, discrete, non-tender, papules were present over the face [Fig. 1 & 2). Based on history and examination differential diagnoses considered were lupus miliaris disseminatus faciei (LMDF), multiple trichoepitheliomas, sarcoidosis, and post kala-azar dermal leishmaniasis (PKDL). Hematological and biochemical tests as well as serum ACE levels were normal. The patient refused for biopsy. Hence, considering a clinical diagnosis of LMDF, a trial with doxycycline was given. After three weeks of therapy, the patient returned with no improvement in pre-existing lesions, but the development of new lesions. A slit skin smear examination was done considering possibility of Histoid hansen's disease. Numerous acid-fast bacilli(AFB) were seen. AFB were longer than normal lepra bacilli, grouped singly and in clusters, uniform in length and tapered at the ends. The bacteriological index was calculated to be 5+ [Fig.3). The patient denied taking anti-leprosy treatment in the past or taking dapsone for other complaints. Family history and close contacts had no history of leprosy or multidrug therapy. Peripheral nerve examination revelaed no abnormalities. There was no lymphadenopathy, muscle wasting or trophic ulcer. The ulnar nerves on both sides were thickened. Crude and fine touch, both were normal. Normal hot and cold sensations were seen over the lesions. Normal sensations over cornea and conjunctiva were seen. There was no motor abnormality on examination.

At this time, a punch biopsy was performed from a lesion which showed epidermal atrophy, and presence of a grenz zone below it. Other features seen in dermis were elongated to epithelioid cells in the form of sheets, inflammatory infiltrate of mononuclear cells and a histoid habitus. We also performed Fite stain, which came out to be positive. A diagnosis of de novo histoid leprosy based on clinical history and examination, slit skin smear and histopathological findings was made. Multidrug treatment was started with rifampicin 600mg monthly supervised, clofazimine 300mg monthly supervised and 50 mg daily, and dapsone 100mg daily. No evidence of Hansen's disease was found in any family member on screening.



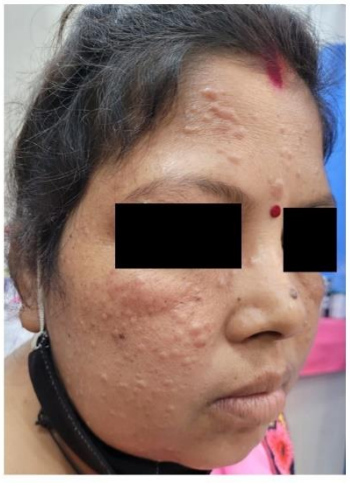


Fig. 1. Showing multiple skin colored, discrete, papules over the face

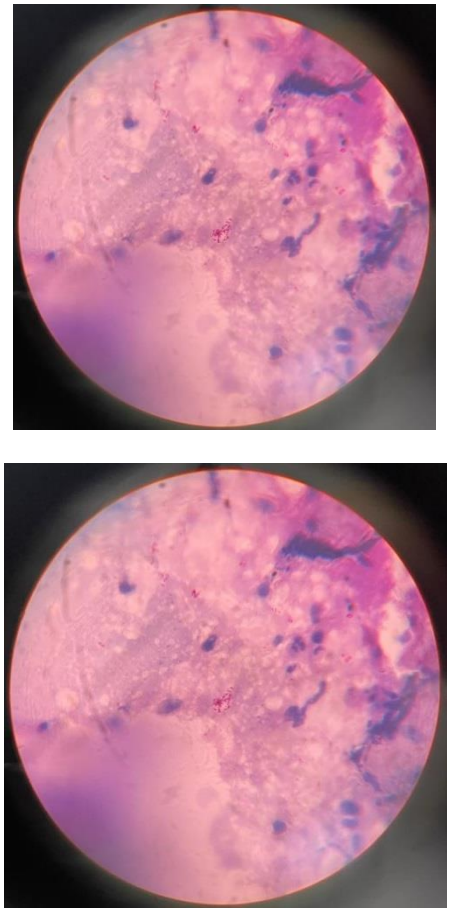


Fig.1. Slit skin smear showing numerous Acid fast lepra bacilli (BI 5+).

Discussion

The term "histoid" was given by Wade, which refers to histopathological appearance of nodules showing spindle-shaped cells and resembling a dermatofibroma. Though many workers have regarded this as an uncommon variant of lepromatous leprosy, some still consider it to be separate. According to Indian statistics, incidence ranges from 2.79%–3.60% with a male predilection and an average age of presentation 21–40 years (1). The most commonly implicated factor is a history of dapsone monotherapy prior to multidrug treatment (2). Denovo histoid leprosy is a rarer form of histoid leprosy in which no aetiology can be determined. It has been seen in about 12.5% of all cases of histoid leprosy (3).

The pathophysiology of histoid leprosy cannot be fully elucidated till date. Although, it is considered a variant of lepromatous leprosy, these individuals have a strong immune response to Mycobacterium leprae than lepromatous leprosy in terms of both cell-mediated immunity and humoral immunity. Macrophages are found in adequaate numbers in skin lesions, but still they lack the killing ability against M. leprae which exist in large numbers (4). Histoid leprosy presents with multiple dome shaped, skin colored, shiny papules and nodules over the face, trunk, buttocks and extremities. These nodules are non tender, and firm in consistency. Previous reports have also described Erythema nodosum-like morphology and figurate morphology of these lesions (5,6).

Histopathology from a histoid nodule shows epidermal atrophy caused by expansion of underlying leproma in the dermis and a clear grenz zone below it. Within these lepromas, histiocytes are seen as fusiform cells, arranged in a whorled, crisscross or storiform pattern. These histiocytes contain abundant acid-fast bacilli (7).

Globi formation is not seen as these AFB do not secrete any glial substance. These AFB are longer, arranged in bundles parallel to each other and are present along the long axis of histiocyte cells. Wade gave the term 'contaminating Tuberculoid bacilli' to the islands of tuberculoid granulomas within the histiocytoid collections (8).

Three histological variants of histoid leprosy have been described. Fusocellular variant with vacuolated cells is most commonly seen(9)

The classical histopathological findings and Fite staining is used to make a diagnosis of Histoid leprosy. It can be distinguished from dermatofibroma by using factor XIIIa and from neurofibroma by using S100 on immunohistochemistry (7). LMDF is a rare dermatoses, which presents as asymptomatic papular eruptions over face around the eyelids and shows epitheloid granuloma with caseous necrosis in the dermis, on histopathological examination (8). Our patient had similar distribution over face so LMDF was considered first and a therapeutic trial of doxycycline was given. Since the patient did not respond to medications, we considered leprosy as the differential. This was then confirmed on the basis of slit-skin smear examination and biopsy findings.

In such cases, a differential diagnosis of histoid leprosy should be considered, especially in countries like India where leprosy still remains a public health problem.

Conclusion

Several atypical presentations of histoid leprosy have already been described like Erythema nodosum like and figurate lesions. But LMDF-like lesions is a rare presentation and it should be added to various morphological presentations of histoid leprosy. Our patient also presented with this atypical manifestation, which because of high index of suspicion along with slit skin smear findings and histopathology, confirmed as histoid leprosy and the patient started on MB-MDT.

Because it is has a multibacillary character and is rare, histoid leprosy poses great challenge to eradication in India. For early case detection, early initiation of MDT, and for continuing surveillance both for new as well as old cases, one should keep a high index of suspicion.

Consent

The authors certify that they have obtained consent from the patient and signed appropriate consent forms. In the form, the patients has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her names and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Non.

Conflicts of interest

There are no conflicts of interest.

Reference

1. Annigeri SR, Metgud SC, Patil JR. Lepromatous leprosy of histoid type. Indian J Med Microbiol 2007;25:70 1.
2. Kantaria SM. De novo histoid leprosy. Indian Dermatol Online J 2014;5:556 8.
3. Kaur I, Dogra S, De D, Saikia UN. Histoid leprosy: A retrospective study of 40 cases from India. Br J Dermatol 2009;160:305 10.
4. Manoharan R, Madhu R, Srinivasan MS. Histoid Hansen — A case report. J Indian Soc Teledermatol 2008;2:12-6.
5. Pathania V, Oberoi B, Baveja S, Shelly D, Venugopal R, Shankar P. A dissimulate presentation of histoid Hansen's disease in the form of erythema nodosum leprosum. Int J Mycobacteriol 2019;8:208 10.
6. Rao AG, Kolli A, Farheen SS, Reddy UD, Karanam A, Jagadevapuram K, et al. Histoid leprosy presenting with figurate lesions: A unique and rare presentation. Indian J Dermatol Venereol Leprol 2018;84:736 9.
7. Kontochristopoulos GJ, Aroni K, Panteleos DN, Tosca AD. Immunohistochemistry in histoid leprosy. Int J Dermatol 1995;34:777- 81.
8. Sehgal VN, Srivastava G. Histoid leprosy. Int J Dermatol 1985;24:286-92.
9. Mendiratta V, Jain A, Chander R, Khan A, Barara M. A nine-year clinicoepidemiological study of histoid Hansen in India. J Infect Dev Ctries 2011;5:128-31.
10. Canuto MJM, Yacoub CRD, Trindade MAB, Avancini J, Pagliari C, Sotto MN. Histoid leprosy: Clinical and histopathological analysis of patients in follow up in University Clinical Hospital of endemic country. Int J Dermatol 2018;57:707 12.
11. Toda Brito H, Aranha JMP, Tavares ES. Lupus miliaris disseminatus faciei. An Bras Dermatol 2017;92:851 3.