Disseminate and recurrent infundibulo-folliculitis in an Indian patient: A case report with review of literature

ABSTRACT

A 17-year-old male patient presented with multiple discrete and confluent monomorphic skin-colored pinhead-sized follicular papules, with occasional pustules distributed on the neck, upper chest, upper posterior trunk, and proximal extremities of 4 months duration. The lesions were asymptomatic, and there was no prior history of topical application or history of atopic dermatitis. Routine investigations were normal. Histopathology of the papules showed a mononuclear infiltrate at the infundibulum of the hair follicle. We made a final diagnosis of disseminate and recurrent infundibulo-folliculitis. The patient was started on NB-UVB and topical tacrolimus. We are reporting an interesting case in an Indian patient.

Key Words: *Folliculitis, infundibulum, recurrent*

Sukumaran Pradeep Nair, Mini Gomathy, Gopinathan Nanda Kumar[1]

Departments of Dermatology and Venereology, [1]Pathology, Government Medical College, Trivandrum, Kerala, India

Introduction

Disseminate and recurrent infundibulo-folliculitis (DRIF) is a rare noninfectious folliculitis occurring predominantly in the black race, first described by Hitch and Lund in 1968, and hence known as the Hitch and Lund disease.[1,2] This entity has occasionally been reported in other races also. It presents with asymptomatic skin-colored, monomorphic, follicular papules usually distributed on the trunk and extremities. Pustules and hair protruding from the papules may also be seen. The histopathological changes are confined to the infundibulum of the hair follicle, and hence the name DRIF.[3] Cases of DRIF in literature are undocumented, more so in India.[3]

Case Report

A 17-year-old male presented with asymptomatic papules on the neck, chest, trunk, and upper extremities of 4 months duration. The papules first started on the upper lateral neck bilaterally 4 months ago, and during the course of a few months extended to the lower neck, upper chest, shoulder, posterior upper trunk, and proximal extremities in that order. The papules were asymptomatic and persistent. The patient denied any history of fever prior to the onset of the lesions, past history of atopy, or any prior topical application. On examination, the patient had skin-colored multiple discrete and confluent, pin-head sized, monomorphic follicular papules distributed bilaterally on the neck and extending below the supraclavicular margin to involve the anterior upper chest, the posterior upper trunk upto the level of the suprascapular margin, and the proximal upper extremities upto the insertion of the deltoid [Figure 1a]. On close examination, some of the papules were arranged in linear rows across the neck creases and a few pustules were seen interspersed along with the follicular papules [Figure 1b]. The other areas of the body, scalp, palms and soles, mucous membranes, hair, and nails were normal. Systemic examination was unremarkable. We had a differential diagnosis of the following: bacterial folliculitis, pityrosporum folliculitis, follicular eczema, keratosis pilaris, lichen spinulosis, justa-clavicular beaded lines, and follicular lichen planus.

The patient's blood hemogram, biochemistry, liver, and renal function tests were normal, and serological tests for syphilis and HIV were negative. A gram stain and pus culture and sensitivity

How to cite this article: Nair SP, Gomathy M, Kumar GN. Disseminate and recurrent infundibulo-folliculitis in an Indian patient: A case report with review of literature. Indian Dermatol Online J 2017;8:39-41.

Received: February, 2016. **Accepted:** April, 2016.

Address for correspondence:
Dr. Sukumaran Pradeep Nair, Department of Dermatology and Venereology, Government Medical College, Trivandrum - 695 011, Kerala, India.
E-mail: dvmchtvm@yahoo.co.in

Access this article online

Website: www.idoj.in

DOI: 10.4103/2229-5178.198775

Quick Response Code:

Table 1: Differential diagnosis of DRIF

Bacterial folliculitis	Pityrosporum folliculitis	Follicular eczema	Keratosis pilaris	Lichen spinulosis	Follicular lichen planus	Justa-clavicular beads
Clinical						
Presents with papules and predominantly pustules in any region	Pruritic papules on the seborrheic areas and scalp	Pruritic hypopigmented follicular macules with history of atopy	Follicular keratotic papules distributed on the elbows, thighs and trunk	Follicular grouped papules with a central spine on the trunk	Pruritic hyperpigmented follicular papules on the scalp and extremities	Skin colored follicular papules on the upper trunk
Histopathology						
Perifollicular neutrophil infiltrate, gram stain positive	Perifollicular neutrophil and eosinophilic infiltrate, spores demonstrated with fungal stains	Spongiotic dermatitis	Hyperkeratosis with minimal spongiosis and perifollicular and perivascular mononuclear infiltrate	Hyperkeratosis with perifollicular and perivascular mononuclear infiltrate	Basal cell degeneration with interphase dermatitis and perifollicular mononuclear infiltrate	Spongiosis, exocytosis and hyperplastic pilo-sebaceous units

DRIF: Disseminate and recurrent infundibulo-folliculitis

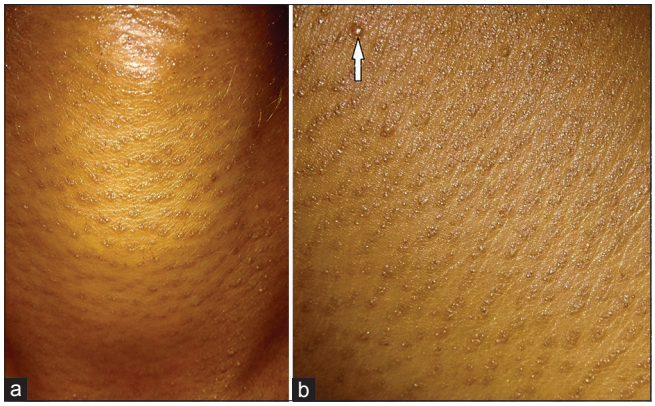

Figure 1: (a) Closely set monomorphic follicular papules on anterior and lateral part of neck, (b) Close view showing linear row of papules with a pustule (arrow)

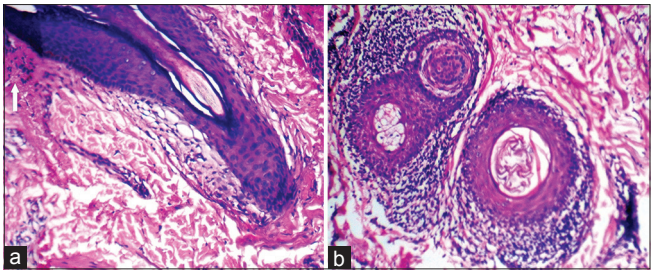

Figure 2: (a) Longitudinal section showing mononuclear infiltrate at the infundibulum of hair follicle (arrow), (b) Cross-section showing perifollicular mononuclear infiltrate, (H and E × 100)

from a pustule did not demonstrate any organism. A skin biopsy from a representative papule and pustule, stained with H and E, showed similar findings of a mononuclear infiltrate arranged at the infundibulum of the hair follicle in the longitudinal section [Figure 2a] and a perifollicular infiltrate in the crosssection [Figure 2b], diagnostic of DRIF. The other areas of the epidermis and dermis were normal. We made a final diagnosis of DRIF.

Discussion

The classical presentation with follicular monomorphic skin-colored papules and a few pustules distributed on the neck, upper chest, and trunk and proximal extremities, along with a skin biopsy finding of a mononuclear infiltrate around the infundibulum of the hair follicle enabled us to make a diagnosis of DRIF. Studies have shown direct immunofluorescence to be negative.[3] The follicular papules in DRIF can be chronic or recurrent. The lesions in our patient were chronic and persistent, rather than recurrent, and hence disseminate and persistent infundibulo-folliculitis would be a more appropriate term.[4] There have been observations suggesting that DRIF may be a manifestation of atopic dermatitis in black patients. However, subsequent reports and in the present case also there were no evidence of past or present evidence of atopic dermatitis. It is proposed that DRIF could be a nonspecific skin reaction pattern to an unknown antigen. The search for an infective agent has so far been elusive. There have also been observations that DRIF could be an overt expression of normal follicular prominence because clinically they mimic "goose bumps." However, the presence of occasional pustules and a mononuclear infiltrate around the infundibulum negates this view. A close differential diagnosis may be follicular eczema, but the latter is usually seasonal, pruritic and histopathology shows the features of spongiotic dermatitis and there is prompt response to topical steroids. Another close differential is justa-clavicular beaded lines.[5] This entity presents with skin-colored follicular papules distributed in the upper trunk, and histopathology shows features of hyperplastic pilo-sebaceous units along with spongiosis and exocytosis. The clinical presentation of DRIF is clinically classical, but other causes of follicular papules such as bacterial folliculitis, pityrosporum folliculitis, keratosis

pilaris, lichen spinulosis, and follicular lichen planus have to be ruled out, even though these conditions have characteristic clinical and histopathological findings. Their differentiating features are given in Table 1.

There are no definite treatment modalities for DRIF. The treatment modalities available are anecdotal and in most cases ineffective. Topical treatment modalities are potent corticosteroids,[6] tretinoin, 12% lactic acid and 20 − 40% urea. The systemic therapies mentioned are high dose oral vitamin A (100,000 IU/day),[4] isotretinoin,[7,8] and PUVA.[9] We started NB-UVB in our patient along with topical tacrolimus (0.1%) for 8 weeks, which was never tried before, but the response was moderate.

The present case was reported because of its rarity in Indian patients, and persistent course.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Hitch JM, Lund HZ. Disseminate and recurrent infundibulofolliculitis. Arch Dermatol 1968;97:432.
2. Soyinka F. Recurrent disseminate infundibulo-folliculitis. Int J Dermatol 1973;12:314-17.
3. Owen WR, Wood C. Disseminate and recurrent infundibulofolliculitis. Arch Dermatol 1979;115:174-5.
4. Joshi SR, Chavan GR, Phadke V, Khopkar, US, Wadhva SL. Disseminate and persistent infundibulo-folliculitis. Indian J Dermatol Venereol Leprol 1996;62:112-3.
5. Butterworth T, Johnson WC. Justa-clavicular beaded lines. Arch Dermatol 1974;110:891-3.
6. Hinds GA, Heald PW. A case of disseminate and recurrent infundibulofolliculitis responsive to treatment with topical steroids. Dermatol Online J 2008;14:11.
7. Aroni K, Grapsa A, Agapitos E. Disseminate and recurrent infundibulofolliculitis: Response to isotretinoin. J Drugs Dermatol 2004;3:434-5.
8. Calka O, Metin A, Ozen S. A case of disseminated and recurrent infundibulo-folliculitis responsive to treatment with isotretinoin. J Dermatol 2002;29:431-4.
9. Goihman-Yahr M. Disseminate and recurrent infundibulofolliculitis: Response to psoralen plus UVA therapy. Int J Dermatol 1999;38:75-6.