Blaschkitis, a rare form of blaschkolinear acquired inflammatory skin eruption (BLAISE) in a 49 year old male

G M O Fernando[1], N Thamilvannan[2], S Ahilan[3], S H Chandraratne[4]

Sri Lanka Journal of Dermatology, 2019/2020, **21**: 67-68

Introduction

Blaschkolinear acquired inflammatory skin eruption or BLAISE encompasses a diverse inflammatory skin disorders which are characteristically distributed along the lines of Blaschko[1]. Histopathologically they comprised of an inflammatory infiltrate and tend to occur in both children and adults. Blaschkitis is a rare form of BLAISE which usually occurs in adults and was first described by Grosshan and Marotin 1990[1,2].

Case

A 49 year old male presented with a one week history of slightly itchy multiple erythematous to hyper-pigmented papules over left side of the lower abdomen. Neither he experienced similar previous episodes nor had personal or family history of psoriasis, atopy.

Examination revealed multiple erythematous and hyperpigmented papules with minimal scale arranged in interrupted linear manner involving multiple lines of Blaschko over left side of the lower abdomen (Figure 1, 2). He did not have evidence of psoriasis or lichen planus and his mucosal examination was unremarkable.

Microscopic examination of a punch biopsy revealed focal parakeratosis, lymphocytic infiltrate and scattered eosinophils in superficial dermis with focal spongiosis favoring spongiotic dermatitis as the histopathological diagnosis (Figure 3, 4).

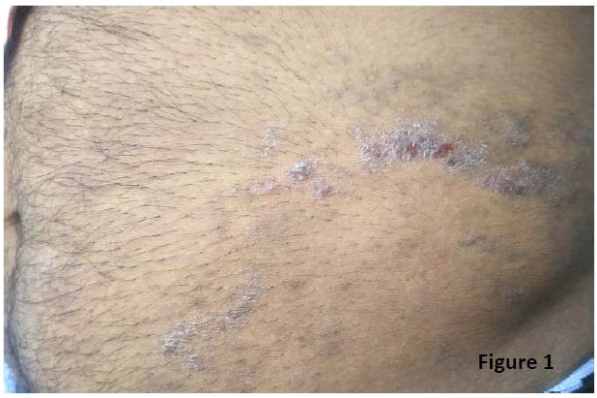

Figure 1

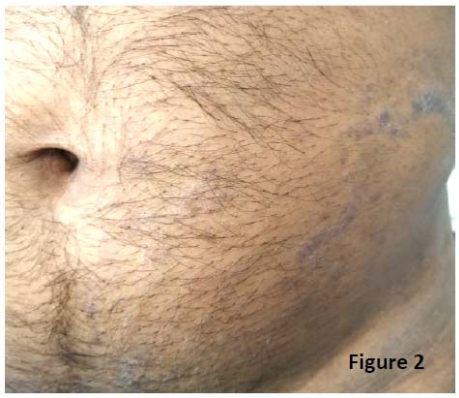

Figure 2

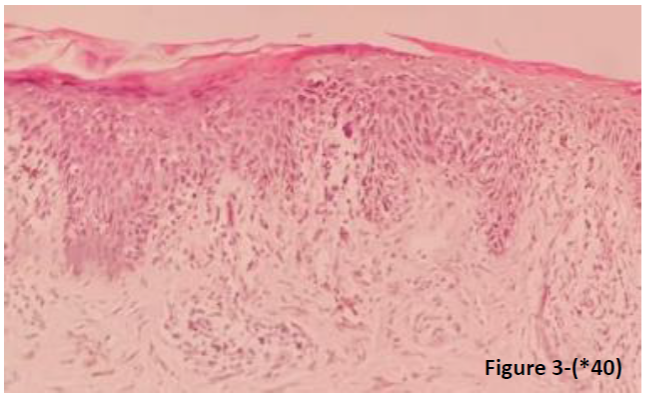

Figure 3-(*40)

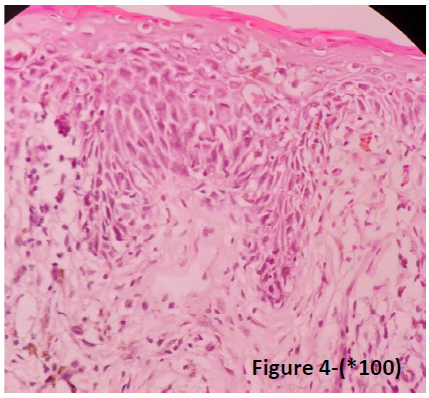

Figure 4-(*100)

[1]*Senior Registrar in Dermatology,* [2]*Consultant Dermatologist,* [3]*Consultant Histopathologist,* [4]*Registrar in Dermatology, Teaching Hospital Batticaloa, Sri Lanka.*

The patient was treated with betamethasone cream twice a day for two weeks followed by 0.1% tacrolimus ointment and had a fairly good response after three weeks.

Discussion

Blaschko lines were first described by German dermatologist Alfred Blaschko in 1901 and they represent pathways of epidermal cell migration and proliferation during fetal development[1]. Blaschko lines have a unique surface pattern and do not relate to vascular or nervous pathways. Visual appearance of these lines occurs when various inherited and acquired disorders manifest along these invincible patterns. The aberrant cell lines resulting from cutaneous mosaicism migrates through normal ectodermal development pathways during fetal development and resides among the normal cell lines causing phenotypically diseased and apparently normal blaschko lines to be visualized adjacent to each other.

Blaschkitis (BL) or acquired blaschkoid dermatitis is a rare skin condition which occurs in adults and may represent the adult form of lichen striatus (LS). Some authors consider BL and LS are conditions within the same spectrum of BLAISE[3,4,5]. In contrast to LS, BL is rarer, occurs in adults, involves multiple blaschko lines, typically occurs on the trunk and rapidly resolves over 2 months[2]. Histologically BL shows spongiotic dermatitis[2].

As the patient had classic clinical features and histological evidence the diagnosis of BL was made. Some reported to have good response with super potent topical steroids[6], but our patient responded to betamethasone cream followed by 0.1% tacrolimus ointment.

References

1. Aravind M, Do TT, Cha HC, Fullen DR, Cha KB. Blaschkolinear acquired inflammatory skin eruption, or blaschkitis, with features of lichen nitidus. *JAAD Case Rep.* 2016; **2**(2): 102-4. Published 2016 Mar 3. doi:10.1016/j.jdcr.2015.12.008
2. Grosshans E, Marot L. Blaschkite de l'adulte [Blaschkitis in adults]. *Ann Dermatol Venereol.* 1990; **117**(1): 9-15.
3. Azizpour A, Nasimi M, Safaie-Naraghi Z, Etesami I. A case of blaschkitis with features of both lichenoid and spongiotic dermatitis. *Indian J Dermatol* 2016; **61**: 348.
4. Raposo I, Mota F, Fernandes IC, Canelhas Á, Selores M. Adult blaschkolinear acquired inflammatory skin eruption (BLAISE) with simultaneous features of lichen striatus and blaschkitis. *Dermatol Online J.* 2018; **24**(1): 13030/qt6394z6nc. Published 2018 Jan 15.
5. Müller CS, Schmaltz R, Vogt T, Pföhler C. Lichen striatus and blaschkitis: reappraisal of the concept of blaschkolinear dermatoses. *Br J Dermatol.* 2011; **164**(2): 257-62. doi:10.1111/j.1365-2133.2010.10053.x
6. Liddell LT, Matinpour K, Mir M, McCain C, Diwan AH. Persistent blaschkitis responsive to high potency topical steroids. *Dermatol Online J.* 2015; **21**(11): 13030/qt2vg933vz. Published 2015 Nov 18.