

## Trauma Induced Localized Scleroderma

Ebtisam Elghblawi

Ebtisam Elghblawi, Clinical Dermatology and cosmology, Senior staff Dermatologist, Private practice (STJ Hospital) uptodate, Tripoli, Libya

Correspondence to: Ebtisam Elghblawi, Clinical Dermatology and cosmology, Senior staff Dermatologist, Private practice (STJ Hospital) uptodate, Tripoli, Libya.

Email: [ebtisamya@yahoo.com](mailto:ebtisamya@yahoo.com)

Received: May 16, 2016

Revised: May 25, 2016

Accepted: May 26, 2016

Published online: June 27, 2016

© 2016 The Author. Published by ACT Publishing Group Ltd.

Elghblawi E. Trauma Induced Localized Scleroderma. *Journal of Dermatological Research* 2016; 1(2): 32-33 Available from: URL: <http://www.ghrnet.org/index.php/jdr/article/view/1691>

### ABSTRACT

Scleroderma is an unremitting autoimmune disease distinctive by enduring connective tissue sclerosis and microcirculatory transforms. Focal scleroderma is believed to be a limited disease. Post traumatic scleroderma is well acknowledged in the existing literature.

### LETTER TO THE EDITOR

Scleroderma is an unremitting autoimmune disease distinctive by enduring connective tissue sclerosis and microcirculatory transforms. Focal scleroderma is believed to be a limited disease. Post traumatic scleroderma is well acknowledged in the existing literature.

It most affects any age group. I describe herein a characteristic case of a pregnant middle aged Libyan lady who gave a straight forward description for the case diagnosis.

She presented with a localized solitary oval pinkish pale, taut hard area on her right mid buttock. She gave a history of a trivial direct fall on a blunt object that she ignored it at that time. At the present she is anxious about its physical look, and the slight discomfort she is experience. Family history and any past medical history and were all non-contributory.

On physical examination, apparently the lady is healthy, with an egg-shaped lone indurated white pinkish, area on the mid right buttock (figure1). Blood routine investigations were within normal ranges. A biopsy confirmed the clinical diagnosis localized scleroderma, as the dermis was thick with collagen bundles that lay haphazardly.

The lady was pregnant, so I proposed the intralesional steroids one shot. The lady then dropped out and never came back for a follow up as suggested.

Trauma has been implicated as an important trigger of morphea, both in children and in adults<sup>[1-2]</sup>. The local traumatization of the affected cutaneous area appears to be the triggering factor for the development of a sclerotic area in the lady buttock. Morphea usually occur without any specific provocations. However some initiators were claimed to be the culprit such as vaccination<sup>[1]</sup>, infections, injury<sup>[3]</sup>, irradiation<sup>[4-6]</sup> and trauma<sup>[7]</sup>.

Further claims in the literature documented as well such as burns, chickenpox, limb immobilization, spinal cord injury, vibration, arterial ischemia<sup>[7]</sup>, exposure to chemicals, like organic solvents, toxic oil, l-tryptophan, silica, and silicone, has been related to scleroderma<sup>[7]</sup>. Injection of a variety of chemical substances or drugs, such as paraffin, bleomycin, methysergide, pentazocine, vitamin K1, and corticosteroids, has been reported as a cause of scleroderma or scleroderma-like illness<sup>[7]</sup>. Lastly, body piercing has been invoked as a cause of diffuse scleroderma in teenagers<sup>[7]</sup>.

It is thought that three main components to trigger the morphea development, explicitly blood vessels, immune system and fibroblasts. The derangement of the first two would incur dysregulation of fibroblast as postulated. Even some genetic element has been found and where trauma could initiate the sclerosis process<sup>[8]</sup>. Morphea usually takes some time to develop and the patient might forget to recall the initial incident. My patient seemed to recall the event of her problem sharply and her morphea was only localized to the site of trauma and did not affect any other parts of her body.

The mechanism of developing excessive collagen production at the blamed site is difficult to understand. It could be a release of certain mediators like cytokines, fibroblast, neuropeptides<sup>[7]</sup> and growth factor which could play a major role in the development of the



**Figure 1** Sclerotic whitish grey pinkish hue area (arrow).

sclerosis due to healing of the wound which induced fibroblast and thus more collagen production<sup>[8]</sup>.

Many treatments has been explained and employed in the literature such as phototherapy and intralesional steroids<sup>[9]</sup>. The troublesome skin disease of morphea can happen months to years after the incident, and is usually accompanied with considerable morbidity and ache, and in addition the worrisome cosmetic aspects. Consequently, it is critical to be attentive of such condition, and to endeavor to spot

patients who might be at an increased risk of developing morphea. This can inform about future consideration in such cases.

To come into conclusion: I described a straight forward case that helped in the diagnosis, where in many instance a recall bias could happen and mislead diagnosis. Morphea is an uncommon skin disorder, featured by well demarcated round sclerotic taught skin. It usually present in a middle aged women. The etiology is unknown, however some state trauma as a triggering factor<sup>[3]</sup>.

## CONFLICT OF INTERESTS

The author declares that have no conflict of interests.

## REFERENCES

1. Torreló A, Suárez J, Colmenero I, Azorín D, Perera A, Zambrano A. Deep Morphea after Vaccination in Two Young Children. *Pediatric Dermatology* 2006; **23**(5): 484-7.
2. Wolf R, Wolf D, Ruocco V, Ruocco E. The role of skin trauma (isotopic and isomorphic) in the distribution of morphea. *J Am Acad Dermatol.* 2015; **72**(3): 560-1.
3. Ahn JG, Kim YT, Lee CW. Trauma-induced isomorphic lesions in morphea--a brief case report. *J Korean Med Sci.* 1995; **10**(2):152-4.
4. Colver GB, Rodger A, Mortimer PS, Savin JA, Neill SM, Hunter JA. Post-irradiation morphoea. *Br J Dermatol.* 1989; **120**(6): 831-5.
5. Verbov J. Post-irradiation morphoea. *Br J Dermatol.* 1989; **121**(6): 819-20.
6. Laetsch B, Hofer T, Lombriser N, Lautenschlager S. Irradiation-induced morphea: x-rays as triggers of autoimmunity. *Dermatology.* 2011; **223**(1): 9-12
7. Toulouei K, Wiener A, Glick BP. Solitary morphea profunda following trauma sustained in an automobile accident. *Cutis.* 2015; **95**(1): 32-6.
8. Hausteil UF. Systemic sclerosis following physical trauma. *Acta Dermato-Venereologica. Acta Derm Venereol.* 2001; **81**(1): 63.
9. Buense R, Duarte IA, Bouer M. Localized scleroderma: assessment of the therapeutic response to phototherapy. *An Bras Dermatol.* 2012; **87**(1): 63-9.