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Case Report: Morphea Profunda Associated with *Helicobacter pylori* Infection in Sudanese Patient

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Abstract Morphea profunda is a rare skin condition of unknown etiology, involves deep subcutaneous tissue, including fascia. Morphea co-existing with other systemic autoimmune diseases such as primary biliary cirrhosis, vitiligo, and systemic lupus erythematosus lend support to morphea as an autoimmune disease. We reported a male patient 65 years old presented with painless palpable skin colored swellings around umbilicus for 2 years deeply seated nodular lesions localized individually around the umbilicus variable in size from 1-2 cm in diameter, not tender. The cases were diagnosed and confirmed histopathologically as Morphea profunda, considered to be the first two cases of HSD been reported in Sudan.

Keywords Morphoea Profunda, Helicobacter pylori, Sudan

1. Background

Person and Su proposed the term morphea profunda in 1981. Morphea profunda is a rare skin condition involves deep dermis, panniculus, fascia or superficial muscle, and there is a clinical overlap with eosinophilic fasciitis, eosinophilia-myalgia syndrome, and the Spanish toxic oil syndrome. [1] Morphea profunda shows little response to corticosteroids and tends to run a more chronic debilitating course. [2]

Morphea is a thickening and hardening of the skin and subcutaneous tissues from excessive collagen deposition [3].

Physicians and scientists do not know what causes morphea. Case reports and observational studies suggest there is a higher frequency of family history of autoimmune diseases in patients with morphea. [3] Tests for autoantibodies associated with morphea have shown results in higher frequencies of anti-histone and anti-topoisomerase IIa antibodies. [4] Case reports of morphea co-existing with other systemic autoimmune diseases such as primary biliary cirrhosis, vitiligo, and systemic lupus erythematosus lend support to morphea as an autoimmune disease. [5-7]

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The onset of morphea may be related to:

- Radiation therapy
- Repeated trauma to the affected area
- A recent infection, such as measles or chickenpox and Borrelia burgdorferi infection

Topical, intralesional, and systemic corticosteroids. Antimalarials such as hydroxychloroquine or chloroquine have been used. Other immunomodulators such as methotrexate, topical tacrolimus, and penicillamine have been tried. Ultraviolet A (UVA) light, with or without psoralens have also been tried. UVA-1, a more specific wavelength of UVA light, can penetrate the deeper portions of the skin and thus, thought to soften the plaques in morphea by acting in two fashions.

2. Case Report

A male patient 65 years old, from Doungula (north of Sudan), presented with painless palpable skin colored swellings around umbilicus two years.

Patient general condition is good.

On dermatological examination, deeply seated nodular lesions localized individually around the umbilicus variable in size from 1-2 cm in diameter, not tender, smooth surface, freely mobile normal color skin and temperature.

On general examination: The general condition is good,

not pale, not icteric, as well no palpable spleen and liver. No palpable lymph nodes.

On dermatological examination, widespread, diffuse symmetrically discrete, non erythematous nodular lesions; firm, not tender, skin overlying move freely, size varied from 1-3 cm, involving mainly periumblical, and suprapubic area. No erosions and ulcers saw.

Palms and soles: No similar lesions on both soles and palms.

Nails: No nails dystrophy has been noticed.

Ears: No Abnormality Detected. .

Hair: No Abnormality Detected.

Oral cavity: No oral lesions are seen.

3. Investigations Did

Excisional biopsy has been taken to show collagen involving the deep dermis and subcutaneous tissue. There is no inflammatory reaction. The appearance suggests generalized sub-Cutaneous Morphea.

Diagnosis: Morphea profunda

Hb%: 14.6 g

TWBs: 7.4

Platelets: 134

H. Pylori test (ICT): **Positive**

4. Discussion

Morphea Profunda is a rare presentation. Our patient was male 65 years old. It presents non-erythematous nodular lesions, not hypopigmented, or atrophic with the skin bound down to the underlying structures. There is no involvement with Reynaud's phenomenon or ulceration of the digits. However, our patient did not have any evidence of systemic involvement.

Investigations in cases of morphea profunda may show low platelets count. Our patient was H. Pylori test (ICT) positive suggestive of an antigen possible cause. This can also be considered as a differential in our case.

Hence, the diagnosis directed more toward of morphea profunda.

The case is reported in view of extensive morphea profunda without systemic involvement, occurring in the elderly male, with H. Pylori test (ICT) active, and for its rarity.

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