

Case Presentation

Plaque Morphea at Distance from Breast Cancer Radiotherapy: A Cost of the Treatment?

Elena Codruța DOBRICĂ^{1,2}, Laura Mădălina BANCIU¹,
Cristina SOARE^{1,3}, Ana MALCIU¹, Vlad Mihai VOICULESCU^{1,3}

¹Elias Emergency University Hospital, Dermatology Department, Bucharest, Romania

²Craiova University of Medicine and Pharmacy, Physiopathology Department, Craiova, Romania

³Carol Davila University of Medicine and Pharmacy, Dermatology Department, Bucharest, Romania

Correspondence to: Elena Codruta Dobrica, Elias Emergency University Hospital, Dermatology Department, Bucharest, Romania; e-mail: codrutadobrica@gmail.com

Abstract

Introduction. Morphea is a rare dermatological disease with no known cause, characterized by persistent inflammation, collagen deposition, fibrosis, and atrophy, as well as a considerable reduction in quality of life. *Case presentation.* An 89-year-old female patient, with a history of arterial hypertension, right mastectomy, and radiation therapy for breast cancer 10 years before, presented for the appearance of two erythematous plaques in the right submammary groove and right flank. The plaques are well-defined, with irregular margins, and have dimensions of 10/5 cm, and 13/8 cm respectively, were infiltrated, with areas of skin retraction and visible capillary network, itchy and painful. They were observed six months before presentation, as a single hyperpigmented lesion that gradually evolved into its current appearance and was treated as a subcutaneous hematoma, without resolution. Laboratory tests showed a nonspecific inflammatory syndrome and an increase in antinuclear antibodies. By corroborating the clinical and paraclinical data, the diagnosis of plaque morphea was made, and the systemic treatment with Penicillin G 2mil IU/12h, 311nm UVB phototherapy was initiated, with favorable evolution. At the subsequent hospitalization, after noticing the increase in the size of the plaques, with their extension to the left hemiabdomen, it was decided to start treatment with Methotrexate 7.5 mg/week, with a favorable evolution and the disappearance of fibrous bands. *Conclusions.* Although radiotherapy may be the trigger factor of morphea, the time until the onset of the disease (9 years) is consistent with the data presented in the literature (9.4 years).

Keywords: morphea, irradiation therapy, breast cancer.

DOI <https://doi.org/10.56082/annalsarscimed.2021.1.35>

INTRODUCTION

Morphea, also known as localized scleroderma, is a rare inflammatory dermatosis characterized by inflammation, increased fibrosis, and subsequent atrophy in the dermis and subcutaneous tissue, with a relatively benign evolution, but increased alteration of the quality of life [1]. The etiology of the disease is not fully understood;

multiple trigger factors are involved, such as radiotherapy, surgery, traumatism, repeated friction in the interested area, bleomycin injection, and *Borrelia burgdorferi* infection. Even though the mechanisms are not fully elucidated, endothelial activation seems to be the primary event in the scleroderma process' formation [2].

Regarding the epidemiology of the disease, the number of cases varies between 0.34 and