Facial psoriasis with cytarabine/daunorubicin: A case report

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Psoriasis is a common chronic inflammatory skin disease. The most common form of psoriasis is characterized by sharply demarcated, scaly, erythematous plaques. The face is an unusual site for psoriasis.

Herein, we report a 43-year-old woman with facial psoriasis that was developed after remission–induction chemotherapy for acute leukemia with high dose cytarabine/daunorubicin.

Keywords: psoriasis, acute myelogenic leukemia, chemotherapy

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INTRODUCTION

Psoriasis is a chronic inflammatory disease that occurs in about 0.1% to 3% of the population. The most common form of psoriasis is characterized by sharply demarcated, scaly, erythematous plaques typically involving the scalp, elbows, and knees, followed by the nails, hand, feet, and trunk. The face is an unusual site for psoriasis [1,2]. We report a case of facial psoriasis that was developed after chemotherapy for acute myelogenic leukemia.

CASE REPORT

A 43-year-old woman with a known history of acute myelogenic leukemia since 6 months ago presented with a 2-month history of multiple erythematous scaly plaques, ranging from 5 to 10 mm in diameter, on her cheeks, nose, and forehead.

Six months before her visit to our clinic, she was diagnosed with acute myelogenic leukemia (M6). She underwent remission–induction chemotherapy for acute leukemia with high dose cytarabine/daunorubicin. (C/D) After treatment induction, she had a complete hematologic remission. Few days after the first course of chemotherapy, she developed erythematous plaques on her face and after the second course of chemotherapy with C/D, the skin lesions worsened with a prominent surrounding erythematous halo. She paid a visit to our clinic with a chief complaint of erythematous plaques on her face without any symptoms since 2 months ago. She had no history of similar lesions. On physical examination, there were multiple pinpoint, round erythematous patches with silvery scales on her forehead, malar region, and chin with an erythematous halo (Figure 1). There was no lesion on other sites of the body. Histological examination of the biopsy specimen from the cheek lesion revealed acanthosis with rete ridge elongation, parakeratosis with focal hypogranulosis, a large pustule of Kogoj and perivascular lymphocytic Infiltration into the upper dermis (Figure 2). Based on the histological features, the skin lesions were diagnosed as psoriasis.

The patient was treated with tacrolimus 0.1% twice daily. One week later, the lesions were completely resolved but post-inflammatory

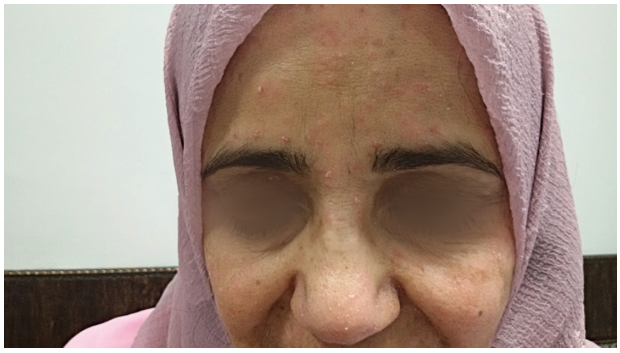

Figure 1. Small pinpoint psoriatic lesions on the face.

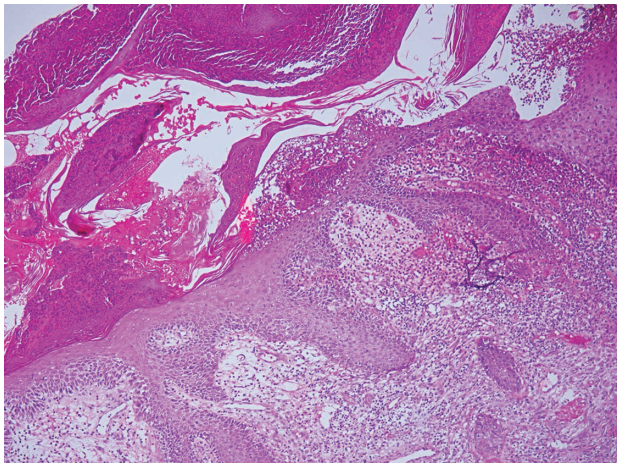

Figure 2. Psoriasiform acanthosis with a large pustule of Kogoj (H&E, ×100).

hyperpigmentation remained.

Three months later, on fallow up due to the flare of the underlying hematologic malignancy, chemotherapy with RCHOP regime started (different chemotherapy agent) but she did not develop facial psoriasis.

DISCUSSION

Psoriasis is a multifactorial disease with various clinical patterns. Facial psoriasis affects up to 46% of the individuals with psoriasis. There is no difference between psoriasis that appears elsewhere and facial psoriasis. The lesion most commonly affect the skin above the upper lip as well as the area around the forehead, eyebrows, and the hair line [1]. Our patient had facial psoriasis on the malar region and forehead. Several factors could be considered as the cause of facial psoriasis in our patient. First, unusual cutaneous presentation of acute myeloid leukemia or metastatic lesions; however, biopsy of the psoriatic plaque showed not infiltration of blastic cells. Paraneoplastic dermatose was also not considered as a cause of eruptions because it does not recur after the flare of underling cancer.

In 1980, Kohn *et al.* reported a case with chronic psoriasis and myelomonocytic leukemia that experienced a dramatic improvement of psoriatic lesions after receiving C/D [3] while in our case, the lesions were developed after high dose C/D which worsened after the second course. It seems that there is a paradoxical response with these drugs. Remission of psoriasis after receiving these two drugs is associated with an increase in cellular immunity which has a role in the pathogenesis of psoriasis, but the mechanism of its paradoxical effect is not clear. However, there are some other drugs with such different effects in psoriasis such as TNF α-blocker agents [4]. We reported a case with pure facial psoriasis after receiving C/D for the first time. After using tacrolimus 0.1% twice daily, her facial lesions resolved completely [5]. Tacrolimus is an immunomodulatory agent that inhibits the activation and maturation of T-cells and blocks transcriptional activation of several cytokine genes. It also interferes with the function of Langerhans cells, basophil cells, and mast cells. Recently, tacrolimus ointment has proved to be effective and well tolerated in patients with facial and intertriginous psoriasis without adverse effects of topical steroids [6].

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