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A case report

Ann Ital Chir, Digital Edition 2019, 8
pii: S2239253X19031086 - Epub, Nov. 11
free reading: www.annitalchir.com

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Psoriasis, a rare disease of the nipple-areola. A case report

BACKGROUND: Psoriasis is a chronic inflammatory skin disease with an incidence of 1-3%. Psoriasis usually occurs in the scalp, knee, elbow, sacral region and joints. The nipple-areola complex involvement is rarely encountered in the literature.

CASE REPORT: 31-year-old female patient, who presented at the dermatology outpatient clinic with a lesion characterized by bright, pearlescent-white squamous lesions on an erythematous plaque, limited to the nipple-areola complex for the past three years, and who was diagnosed with "Psoriasis" following incisional biopsy.

CONCLUSIONS: The benign or malignant distinction should be made for lesions observed in the nipple-areola complex. It should not be forgotten that psoriasis may also be present in the differential diagnosis of dermatitis-like benign lesions that do not respond to long-term and various drug treatment, although they are rare.

KEY WORDS: Complex Benign lesions, Breast, Nipple areola, Psoriasis

Introduction

Psoriasis is a chronic, inflammatory skin disease characterized by well-defined borders of erythematous plaques or bright, pearlescent-white squamous lesions located on papules¹. Although the disease has been known since Antiquity, it is also known as Willan's Lepra since the clinical description of the disease was first made by Robert Willan². Its incidence has been reported to be

approximately 2-3%; and autoimmune, immunological, and genetic factors have been implicated in its etiology^{1,2}.

The disease is frequently characterized by symmetrically located squamous plaques on the scalp, the knee, the elbow, the sacral region and on the extensor surfaces of joints¹⁻². Rare cases of psoriasis with nipple-aerobic complex involvement have been reported in the literature, which remained under-researched. Thus, we conducted this present research to provide insights into the literature.

Case Report

This case study focused on a thirty-one-year-old female patient who was previously using topical and systemic corticosteroids, antibiotic creams and pills, and antihistaminic medication for chronic complaints of erythematous squamous plaques with well-defined borders on the right nipple for the past three years.

Pervenuto in Redazione Giugno 2019. Accettato per la pubblicazione Ottobre 2019

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Fig. 1: Erythematous squamous plaques with well-defined borders on the right nipple-areola complex.

She had taken Dapsone treatment for the diagnosis of pemphigus. Evaluation of the patient who presented at the dermatology outpatient clinic following persistence of the complaints revealed Native negative, prick test results as house dust mites 3/5, fungi 2/3, animal epithelium 3/5, herbs 3/5, and weeds 2/3. Apart from the plaque lesion with a limited number of erythematous squamous plaques on the right breast (Fig. 1), examination of both breasts and axillae were normal. Radiologic imaging demonstrated an increase in the right nipple-areola complex thickness and right axillary lymphadenomegaly. An incisional biopsy was performed for definitive diagnosis. Histopathological examination demonstrated parakeratosis, neutrophilia, acanthosis, and fibrous spongiosa on the epidermis and vascular proliferation and perivascular mononuclear inflammatory cells were detected

in the papillary dermis. These findings were evaluated as "Psoriasis". (Fig. 2 A, B)

The patients who were previously evaluated as having a Psoriasis Area Severity Index (PASI) score of 1-2, were started on topical steroids; however, following the failure of any improvement and due to the folded skin nature of the region topical Tacrolimus treatment was initiated. The patient's lesion was found to have almost completely regressed after two months of treatment (Fig. 3).

Discussion

Benign lesions, such as eczema, ductal ectasia, periductal mastitis, adenoma, papilloma, leiomyoma, fungal infections and abscess, could be observed in the nipple-areola complex, together with; malignant lesions, such as Paget's disease, lymphoma and invasive-noninvasive breast cancer¹⁻⁴.

The number of cases diagnosed as psoriasis with isolated nipple involvement, without the diagnosis of psoriasis was found to be very rare in the literature after screening the keywords "Nipple Psoriasis" on PubMed, Google Academic and Ulakbim^{3,4}. In the literature, there are cases of psoriasis of the nipple-areola complex following breastfeeding⁵, radiotherapy (Koebner Phenomenon)⁶ and Dabrafenib treatment⁷, and also cases of psoriasis with breast and axillary involvement⁸ found in the etiology of lymphedema which occurs after quadrantectomy and radiotherapy. Thus, the findings of the present research provide valuable insights into the literature given that a case of psoriasis with nipple-areola complex involvement was reported in this research.

Given the gap elucidated above, evaluation of the patient's first examination before deciding on treatment for psoriasis is of utmost importance.

On first examination:

– the entire body, including scalp and nails, should be examined;

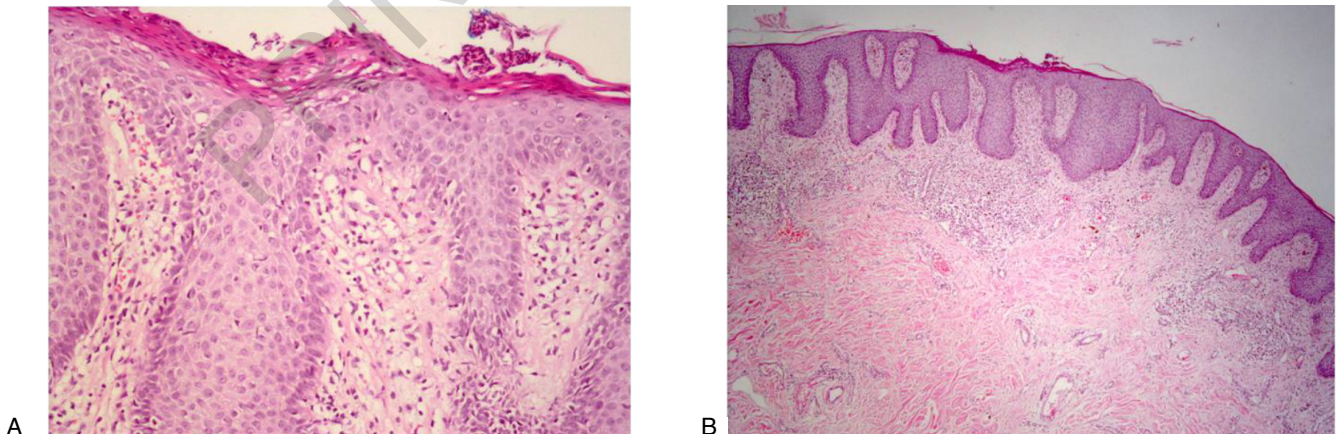


Fig. 2: A) Regular acanthosis of the epidermis, rete ridges (Hematoxylin-Eosin x100); B) Parakeratosis and neutrophilia in the epidermis, suprapapillary thinning and vascular proliferation in the papillary dermis (Hematoxylin-Eosin x400).

- the patient's characteristics;
- presence of psoriasis in family members;
- triggering factors (e.g., infection, stress,);
- disease duration;
- previous treatments and treatment responses;
- the presence of concomitant disease (joint involvement, diabetes mellitus, atherosclerosis, inflammatory bowel disease) should be investigated³⁻⁹.

No history of psoriasis and psoriasis-accompany disease was reported in the clinical history of the patient, and there was no family history of psoriasis.

There was no other lesion on her examination suggestive of psoriasis apart from the right nipple-areola complex.

Despite various treatments for the past three years, psoriasis was diagnosed in our patient through incisional biopsy, due to the persistence of the lesion on the right nipple-areola complex which simulated the diagnosis of Paget's disease.

Many treatment options for Psoriasis have been reported, both topical and systemic. In cases of mild psoriasis, topical treatments are adequate and successful, while moderate and severe cases require additional systemic treatments³⁻⁹.

One of the most commonly used measuring scales for defining the severity of psoriasis is the Psoriasis Area Severity Index (PASI), which grades symptoms of the disease such as erythema, dandruff and induration/infiltration according to their anatomical localizations⁹⁻¹⁰.

Distribution of Psoriasis Area Severity Index (PASI) scoring is as follows⁹⁻¹⁰:

- Head - 9%
- Anterior trunk - 18%
- Posterior trunk - 18%
- Right leg (including hip) - 18%
- Left leg (including hip) - 18%
- Arms - 18%
- Genital region - 1%



Fig. 3: View of the right nipple-areola complex after treatment.

Patients with a PASI score of less than 10 are considered to have mild psoriasis.

The PASI score of our patient was calculated as 1-2 %. Topical corticosteroids and D-vitamin analogues are the first treatment options for localized and mild psoriasis. These can be used alone or in combination. Our patient was considered to have mild psoriasis, and topical Tacrolimus therapy was initiated.

Conclusion

The benign or malignant distinction should be made for lesions observed in the nipple-areola complex. It should not be forgotten that psoriasis may also be present in the differential diagnosis of dermatitis-like benign lesions that do not respond to long-term and various drug treatment, although they are rare.

Riassunto

La psoriasi è una malattia infiammatoria cronica della pelle con un'incidenza dell'1-3%, che si manifesta di solito a livello del cuoio capelluto, del ginocchio, del gomito, della regione sacrale e delle articolazioni. Il coinvolgimento complesso del capezzolo-areola si incontra raramente in letteratura.

Il caso clinico presentato riguarda una paziente di 31 anni, riscontrata affetta presso l'ambulatorio di clinica dermatologica una lesione caratterizzata da lesioni squamose bianche, perlacee su una placca eritematosa, limitata al complesso areola-capezzolo, manifestatasi negli ultimi tre anni, e che è stata diagnosticata come "psoriasi" a conclusione di un prelievo tissutale biotico.

La distinzione di benignità o malignità dovrebbe essere fatta per tutte le lesioni osservate nel complesso areola-capezzolo. Non bisogna dimenticare che la psoriasi può anche essere presente nella diagnosi differenziale di lesioni benigne simili a dermatiti che non rispondono al trattamento farmacologico a lungo termine e variato, sebbene siano rare.

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