Skin therapies: dermatologic perspective on the rheumatology-dermatology interface

J.L. Sasaki[1], J.Y. Koo[2]

[1]University of Hawaii, John A. Burns School of Medicine, Honolulu, HI, USA; [2]Department of Dermatology, Psoriasis, Phototherapy and Skin Treatment Clinic, University of California, San Francisco, San Francisco, CA, USA.

Jodie L. Sasaki, MS
John Y. Koo, MD

Please address correspondence to:
Jodie Sasaki,
515 Spruce Street,
San Francisco,
CA 94118, USA.
E-mail: jodies@hawaii.edu

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ABSTRACT

Psoriasis is a common, chronic, inflammatory skin condition in which up to 42% of patients may develop psoriatic arthritis. Consequently, dermatologists and rheumatologists frequently manage the same patient for psoriasis and psoriatic arthritis, respectively. Hence, it is important for the two specialties to understand one another and work together to optimise care of patients with psoriatic disease. This article discusses several areas of clinical concern in which coordination of care is especially critical. First, when selecting a therapeutic modality, it is best to use treatments that improve both the joints and the skin, and exercise caution while using options that can rarely worsen the skin, such as systemic steroids. Second, a close working relationship between the two specialties is critical in making prompt and early diagnosis of psoriatic arthritis. Dermatologists often are on the frontlines for detecting early signs of joint involvement, and the prevalence of undiagnosed PsA among patients with psoriasis is estimated to be 15.5%. Third, in the rare instance of anti-TNF induced paradoxical worsening of the skin disease, it is highly recommended that these patients be referred to dermatologists as soon as possible for optimal management of the skin manifestations. Lastly, dermatologists in the US have a long history of undertreating generalised psoriasis, especially with regards to the use of systemic agents. Therefore, the consideration of systemic agents by the rheumatologist may greatly benefit the patient by treating both the joint and skin manifestations. In summary, this article highlights the importance of interdisciplinary coordination between rheumatologists and dermatologists for which both specialties offer unique and complementary expertise to the care of patients with psoriatic disease.

Introduction

Psoriasis is a common, chronic, inflammatory condition that affects about 2% of the population worldwide (1). Although skin disease is its most prominent feature, joint involvement, or psoriatic arthritis (PsA) has been estimated to affect up to 42% of patients with psoriasis (2). Due to the multisystem nature of psoriatic disease, dermatologists and rheumatologists often become involved in taking care of the same patient, which can result in fragmented and ineffective care if there is poor coordination between the two specialties. Therefore it is important for dermatologists and rheumatologists to understand one another and work together when caring for patients with PsA. Several commonly encountered clinical issues for which coordination of care between rheumatologists and dermatologists would be especially beneficial for patients with PsA will be reviewed in this article:

1. Choice of therapeutic options
2. Early detection of psoriatic arthritis
3. Management of TNF-α blocker induced paradoxical psoriasiform dermatitis
4. Adequate treatment of both skin and joint manifestations.

Choice of therapeutic options

With regard to the choice of therapeutic modality, there are options available to rheumatologists that may benefit the joints and the skin simultaneously, such as TNF-α antagonists, other biologic agents, and methotrexate. However, there are also options that can alleviate joint symptoms but possibly exacerbate the skin lesions of psoriasis. The therapeutic option with most concern for negatively impacting skin lesions is systemic steroids, where rebound of psoriasis can rarely occur either during the use of the steroid or upon its withdrawal. Rebound of psoriasis is defined

as skin lesions becoming significantly worse with a Psoriasis Area and Severity Index (PASI) score of 125% (or more) of pre-treatment baseline or conversion to a new, more inflammatory state, such as generalised pustular or erythrodermic psoriasis occurring within 3 months of stopping therapy (3).

Although the importance of systemic steroids as a trigger for generalised pustular or erythrodermic psoriasis has been well documented (4-12), no studies to date have clearly defined a threshold dosage at which the risk of psoriasis flare is most likely. The Tight Control of Psoriatic Arthritis (TICOPA) trial estimated the risk of psoriasis flare to be around 8%, particularly with higher doses (120 mg) of intramuscular steroids (13). These results suggest the risk of rebound psoriasis may be dose dependent. Furthermore, the authors have anecdotally learned from rheumatology colleagues that when low doses (~10 mg/day) prednisone is used in combination with a disease modifying agent, psoriasis rebound has never been observed. Therefore, although dermatologists generally avoid the use of systemic steroids, if they are truly necessary for relief of joint flares, dermatologists are not likely to absolutely object. However, this situation presents an important example of how coordination of care between dermatology and rheumatology can be of great benefit to the patient. Rebound of skin psoriasis is most likely when there is no additional treatment on board as the steroid is tapered off or abruptly discontinued. Therefore, the risk of rebound can be significantly diminished if the patient has one or more "backup" treatments, such as methotrexate, biologic agents, oral retinoid, or phototherapy on board during a carefully planned steroid taper (4, 13).

Early detection of PsA

A major difference between PsA and psoriasis is the fact that PsA frequently leads to destructive processes with irreversible damage while the skin lesions of psoriasis usually can be reversed and eliminated without any lasting sequelae. A recent large, cross-sectional cohort study of PsA patients showed that even a 6-month diagnostic delay, from symptom onset to the first visit to a rheumatologist, leads to significantly more radiographic damage, joint erosions, and worse long-term physical function (14). This places dermatologists in a unique and critical position to detect PsA early in the disease course, as the skin lesions of psoriasis often appear several years before the onset of joint symptoms. Unfortunately, the current reality is that the diagnosis of PsA often is missed or delayed. The prevalence of undiagnosed PsA among patients with psoriasis is estimated to be 15.5% while under the care of a dermatologist (15). This is understandable as dermatologists frequently see patients very rapidly and are focused primarily on visible skin lesions. Therefore, a collegial relationship with rheumatologists might very well encourage dermatologists to screen for joint symptoms and be the point provider for early diagnosis of arthritis. A recent article published in JAAD recommended a greatly simplified teaching tool that highlights the hallmarks of PsA so even the busiest dermatologists can screen patients (16). Beyond minimal questioning, validated screening tools such as ToPAS, PEST, and PASQ were found to be useful in helping dermatologists distinguish between patients without PsA and patients with possible PsA who may benefit from a rheumatologist's assessment (17). However, further differentiation between PsA and other inflammatory or non-inflammatory rheumatologic conditions, was found to be beyond the feasible capability of dermatologists and hence justifies the need for referral to rheumatologists (18). A close working relationship with a rheumatologist may also increase the likelihood that all patients with joint symptoms will be referred to a rheumatologist for an appropriate joint evaluation, even those whose symptoms have improved with an anti-TNF biologic or other agent prescribed by the dermatologist. Joint destruction can progress despite symptomatic improvement with agents such as NSAIDs and DMARDs (19, 20). Lastly, dermatologists generally have minimal training in formal joint counts or other tools for joint assessment. Therefore, it is best for the patient with PsA to be periodically evaluated by a rheumatologist, even if the patient is symptomatically controlled.

TNF-α blocker induced paradoxical psoriasiform dermatitis

Another clinical issue that requires close coordination between rheumatologists and dermatologists is the diagnosis and management of the rare phenomenon of paradoxical psoriasiform dermatitis induced by a TNF-α blocker. This phenomenon has been reported in more than 200 cases worldwide since 2000 (21). However, the actual incidence may be much higher than the number of reported cases. Moreover, the skin lesions do not always resolve even if the anti-TNF agent is discontinued and typically require additional treatment modalities such as topical steroids, calcipotriol, salicylic acid, narrowband UVB, methotrexate, acitretin, or cyclosporine for resolution. In fact, the proposed algorithm by Collamer et al. recommends continuing treatment with the anti-TNF agent to prevent worsening of concurrent inflammatory disorders while aggressively treating the skin lesions with the aforementioned dermatologic therapies. According to the algorithm, consideration of alternative anti-TNF agents should occur only if the lesions are unresponsive to the above modalities (22). There has also been a recommendation that if the anti-TNF agent were to be discontinued due to severe and intolerable skin lesions, the transition should be coupled with initiation of another systemic therapy for psoriasis (23). In a recent consensus report by a multidisciplinary group of rheumatologists and dermatologists using the Delphi method, the recommendation was that any patient who develops paradoxical psoriasis should be referred to a dermatologist for confirmation of the diagnosis and optimal management of the skin lesions (24).

Suboptimal treatment of generalised psoriasis among dermatologists

Non-treatment and undertreatment of psoriasis with systemic therapies among dermatologists is a significant problem in the United States (18, 25).

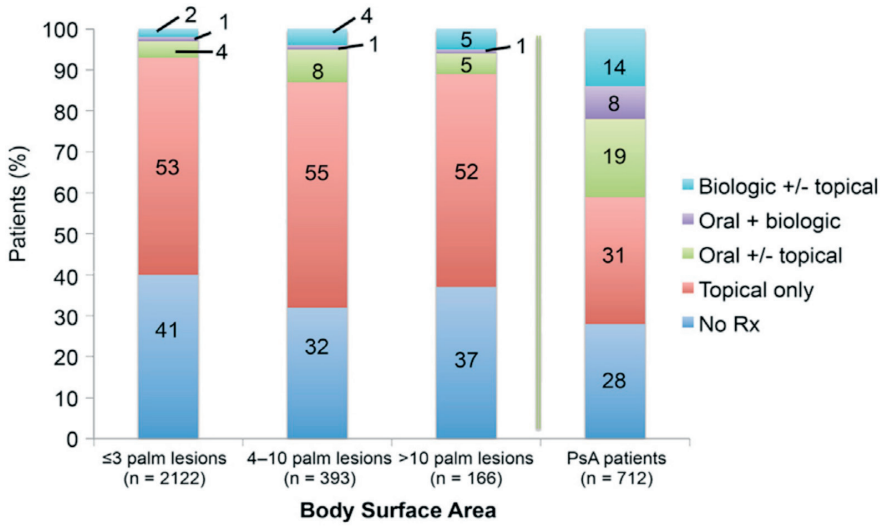

Fig. 1. Treatment by palm body surface area in psoriasis and PsA.
Source: LEBWOHL MG, *et al*., Patient perspectives in the management of psoriasis: results from the population-based Multinational Assessment of Psoriasis and Psoriatic Arthritis Survey. *J Am Acad Dermatol* 2014. 70: 871-81.e1-30.

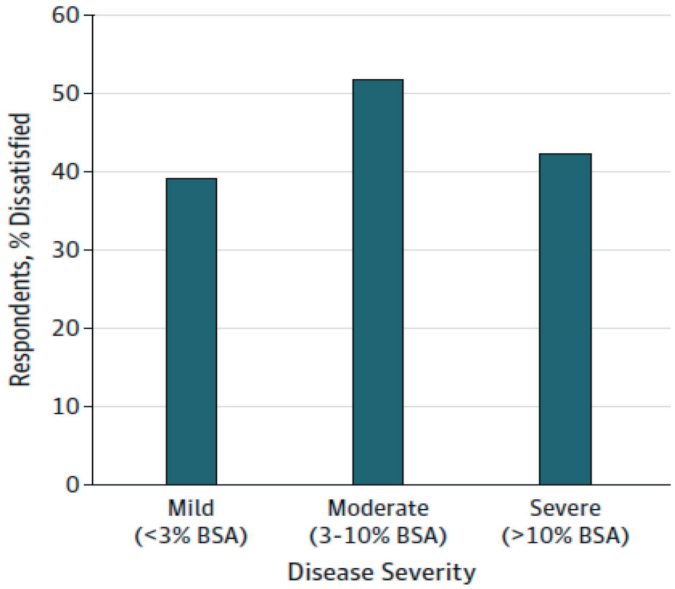

Fig. 2. Patient dissatisfaction with psoriasis treatments by severity level.
Source: ARMSTRONG AW, *et al*., Undertreatment, treatment trends, and treatment dissatisfaction among patients with psoriasis and psoriatic arthritis in the United States: findings from the National Psoriasis Foundation surveys, 2003-2011. *JAMA Dermatol* 2013. 149: 1180-5.

Consequently, it may not be unusual for rheumatologists to encounter PsA patients whose generalised skin psoriasis is not adequately treated. The Multinational Assessment of Psoriasis and Psoriatic Arthritis (MAPP) simultaneously surveyed rheumatologists and dermatologists in North America and Europe and found that significantly more rheumatologists reported aggressive use of biologic agents compared to dermatologists (41.5% *vs*. 19.9% respectively). Similarly, many more rheumatologists were willing to prescribe conventional oral treatments compared to dermatologists (63.4% *vs*. 35.2% respectively) (18). Moreover, results from the multinational patient survey documented that only 11% of patients with >10 palms body surface area received any type of systemic agent for their psoriasis, as 89% were receiving no treatment or topical treatment only (Fig. 1) (26). This suboptimal treatment of psoriasis among dermatologists has understandably led to a high level of patient dissatisfaction with dermatological care. A recent National Psoriasis Foundation survey found that 52.3% of patients with psoriasis were dissatisfied with their treatment (Fig. 2) (25). Therefore, if a patient with generalised psoriasis is in the unfortunate situation in which no dermatologist in the area is willing provide more than topical therapy, a systemic option offered by the rheumatologist may in fact prove critical for skin clearance as well as joint improvement. However, even in these situations, it would be beneficial for collaboration to occur with a dermatologist who can help optimise topical therapy and possibly also provide phototherapy, if available.

In conclusion, because psoriasis is a common condition and PsA is present in a large proportion of the cases, rheumatologists and dermatologists frequently find themselves caring for the same patient. Therefore, close coordination of care between the two specialties will be most beneficial to the patient. Treatment modalities that improve both the skin and joints are preferred over options that may improve joint symptoms but possibly risk exacerbating skin psoriasis through the rebound phenomenon. If treatment options such as systemic steroids are required, coordination of care with a dermatologist is important to minimise the risk of a rebound flare and to treat a rebound optimally should one occur. The prevalence of undiagnosed PsA among patients with psoriasis is estimated to be 15.5%, therefore interdisciplinary coordination is needed to encourage dermatologists to detect early signs of PsA and make timely referrals to rheumatology. In the rare situation of paradoxical worsening of a psoriasiform condition with anti-TNF agents, the authors recommend all patients to be referred to a dermatologist for diagnosis and management of skin lesions. Finally, dermatology as a specialty has always had a tendency toward systemic *under* treatment of patients with generalised psoriasis. Therefore consideration of oral or biologic agents by rheumatologists is likely to be of critical benefit to patients with PsA and

generalised psoriasis who cannot find a dermatologist willing to treat beyond topical therapy for the skin disease. In summary, the authors strongly encourage coordination of care between the two specialties to ensure optimisation of treatments and ultimately improve patient satisfaction and quality of life.

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