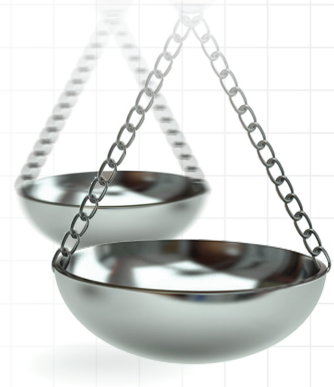
Editorial

For reprint orders, please contact: reprints@futuremedicine.com



Journal of **Comparative Effectiveness Research**

Treatment decisions in psoriasis

Michael J Visconti*[,1], Arjun M Bashyam[1] & Steven R Feldman[1,2,3,4]

[1]Center for Dermatology Research, Department of Dermatology, Wake Forest School of Medicine, Winston-Salem, NC 27101, USA

[2]Department of Pathology, Wake Forest School of Medicine, Winston-Salem, NC 27101, USA

[3]Department of Social Sciences & Health Policy, Wake Forest School of Medicine, Winston-Salem, NC 27101, USA

[4]Department of Dermatology, University of Southern Denmark, Odense, DK-5000, Denmark

*Author for correspondence: Tel.: +1 336 716 7740; Fax: +1 336 716 7732; michvisconti@gmail.com

"Educating patients about their options empowers patients to be involved in treatment decisions regarding their condition."

First draft submitted: 10 July 2019; Accepted for publication: 11 July 2019; Published online: 12 September 2019

Keywords: biologics • corticosteroids • phototherapy • psoriasis • psoriatic arthritis • treatment decisions

Psoriasis is a diverse condition; so are patients' preferences. Treatment decisions in psoriasis should account for what is objectively better in conjunction with patients' subjective desires. This interplay makes psoriasis treatment decisions complex.

Psychosocial & educational aspects of psoriasis treatment

The key factor in the treatment of psoriasis is the provider–patient interaction. This interaction is an opportunity to educate the patient about their condition, address patient questions, and set attainable treatment goals (as well as to serve as a foundation for good treatment adherence). Touching patients' lesions puts the patient at ease and helps communicate that he or she is not contagious [1]. Educating patients about their options empowers patients to be involved in treatment decisions regarding their condition. Referral to the National Psoriasis Foundation website allows patients to learn more about their condition outside of the clinic from a reliable source, as well as giving patients a means to work toward new treatments and better treatment access.

Comorbid conditions

Screening for comorbidities in patients with psoriasis is recommended and may direct treatment recommendations. Screening for joint disease may be performed through simple screening questions such as joint pain, joint stiffness and back pain. Screening for depression may also be prudent, as is assuring that patients are up to date on standard cardiovascular screening recommendations.

Extent of disease

Determining whether psoriasis involvement is limited or extensive is another foundation of treatment selection. Extensive disease has three definitions. One (<10% vs >10% body surface area) is used in clinical trials, while another (<5% vs 5%) is used by insurers. A third definition, recommended among the three, involves providers making treatment decisions based on whether or not patients can reasonably treat all their lesions with topical therapy. Topical medications are considered first-line for both localized and extensive disease, but extensive disease warrants additional treatment as topical treatment alone is not a practical solution.

Limited disease

Topical medications are firstline in the treatment of limited psoriasis. Keeping the treatment regimen simple is especially important for topical medications. Simplification promotes treatment adherence, which leads to better outcomes. When topicals are not effective, assessing adherence is critical.

Topical medications for limited disease in an uncomplicated region include topical corticosteroids, emollients and vitamin D analogs. Topical corticosteroids are highly effective and firstline in treating localized disease, although

Future Medicine

not all patients may improve with their use. Combination topical products may be considered and can reduce regimen-burden if use of more than one agent is desired. These include topical corticosteroids with vitamin D (calcipotriene, calcitriol) or vitamin A derivatives (tazarotene). The addition of localized phototherapy may also be chosen for limited disease.

Extensive disease

Topical medication alone in extensive disease is not practical. Patients with extensive disease, or limited disease with a large impact on quality of life, are candidates for phototherapy or systemic therapy. The choice of treatment can be selected after a discussion of risks, benefits and potential side effects with patients. Treatment choice should be guided by patients' informed preference of which of these factors is of the highest importance, as taking their input into account when selecting a regimen may help with adherence. National Psoriasis Foundation resources are a valuable way to efficiently educate patients about the available treatment options.

Phototherapy is available in a variety of modalities, including ultraviolet B (UVB) radiation (290–320 nm), narrowband UVB (311 nanometers) and photochemotherapy (PUVA), which utilizes psoralen and ultraviolet A radiation (320–400 nm) [2]. Preference is given to UVB phototherapy because of the lower risk of cutaneous malignancy compared with PUVA [2]. The risk of cutaneous malignancy with phototherapy is minimal with UVB, and this should not prevent patients from receiving phototherapy as a treatment. In addition to office-based phototherapy, home phototherapy units are available via prescription and eliminate the need for frequent, and often inconvenient, office visits. However, the high up-front cost of home phototherapy devices is a hurdle many patients face.

Systemic therapy involves a challenging decision, as numerous choices exist. These decisions are best made with patient involvement and can take into account patient preference, drug-related side effects, drug availability and the financial burden of these treatments. Biologic agents are the most effective therapies for extensive disease [3]. A discussion with patients desiring the most effective biologic treatment might lead to a prescription of IL-17 pathway inhibitors, whereas the desire for the best safety profile might lead to ustekinumab. Outside of this decision paradigm, choosing between biologic agents can be exceedingly difficult as small differences in efficacy, safety and route of administration exists between treatment options. Patients' preferences among these characteristics vary, too. Oral agents are available in addition to biologic agents. Patients who fail systemic therapy may require reassessment to discuss modifiable risk factors (obesity, poor adherence), an increase in therapeutic dose, starting an alternative agent or adding adjunctive therapy (phototherapy, topical therapy) [4].

Special sites

The effective treatment of psoriasis in certain locations (intertriginous, scalp, nail, palms and soles) necessitates an adjustment of the therapeutic approach.

The treatment of intertriginous psoriasis with high-potency topical corticosteroids is not advised due to the increased risk of cutaneous atrophy in these regions (although very short-term use may be reasonable). Low potency corticosteroids, vitamin D analogs or calcineurin inhibitors are all viable first-line options [5]. The latter noncorticosteroid agents are more costly than generic topical corticosteroids, which may influence patients' adherence to the regimen. Combination products (corticosteroids and noncorticosteroids) may also be beneficial in ensuring patient adherence, as they reduce regimen burden.

Scalp psoriasis therapy can be challenging for patients to adhere to, as a result of the difficult application of treatment choices that can also be challenging to remove and may cause greasy-appearing hair. The aforementioned general principle of reducing the complication of treatment regimens is especially applicable in this setting to counteract this risk of low adherence. Of particular importance is determining patients' preference for a drug vehicle, as creams and ointments may be messy, resulting in challenges to application and lower patient adherence. In the selection of a therapeutic agent, highly potent topical corticosteroids are superior to vitamin D analogs [6,7]. Formulations in vehicles such as shampoo, gel, foam or spray may increase adherence as a result of their less messy application.

The treatment of nail psoriasis begins with patient education on psoriasis involving this particular location. Patient education focuses on the prolonged course of nail psoriasis, setting forth attainable treatment outcomes and the value in preventative measures for nail disease: nail trimming, protective measures (i.e., gloves) to avoid minor trauma, and use of emollients on hands and nails [8]. Classification of severity helps to guide treatment decisions, with mild disease considered to be no more involvement than two nails and no functional impairment

and moderate–severe disease having more than two involved nails with impairment of function. Mild nail disease can be treated with topical therapy (corticosteroids, vitamin D analogs). Patients with moderate to severe nail disease benefit from systemic therapy with a biologic agent. Patients and providers should be patient when treating nail psoriasis, as normal nail regrowth may take a long time.

Psoriasis of the palms and soles is associated with a high level of disability and is relatively difficult to control. Potent treatment is indicated due to the high level of disability. Treatment options include topical corticosteroids, vitamin D analogs or combination formulations for mild to moderate disease [9]. The treatment of more advanced palmoplantar disease involves the use of systemic agents, including small molecule and biologics treatments [9].

Conclusion

The treatment of psoriasis is a complex exchange between patient and provider preferences, patient goals, psychosocial factors, comorbidities and financial burden. When beginning any treatment regimen for psoriasis, taking the time to educate patients on their condition, setting forth treatment goals, evaluating the most important factors in therapy from the patients' perspective and carefully examining for treatment barriers is vital for patient adherence.

Author contributions

MJ Visconti focused on critical manuscript design, gathering of material, writer of majority of manuscript, critical review of manuscript and approval of final version of manuscript. AM Bashyam carried out critical manuscript design, gathering of material, critical review of manuscript and approval of final version of manuscript. SR Feldman dedicated to critical manuscript design, critical contributions to intellectual content ideas, critical review of manuscript and approval of final version of manuscript.

Financial & competing interests disclosure

SR Feldman has received research, speaking and/or consulting support from a variety of companies including Galderma, GSK/Stiefel, Almirall, Leo Pharma, Boehringer Ingelheim, Mylan, Celgene, Pfizer, Valeant, Abbvie, Samsung, Janssen, Lilly, Menlo, Merck, Novartis, Regeneron, Sanofi, Novan, Qurient, National Biological Corporation, Caremark, Advance Medical, Sun Pharma, Suncare Research, Informa, UpToDate and National Psoriasis Foundation. He is founder and majority owner of www.DrScore.com and founder and part owner of Causa Research, a company dedicated to enhancing patients' adherence to treatment. The authors have no other relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript apart from those disclosed.

No writing assistance was utilized in the production of this manuscript.

References

Papers of special note have been highlighted as: • of interest

1. Gupta MA, Gupta AK, Watteel GN. Perceived deprivation of social touch in psoriasis is associated with greater psychologic morbidity: an index of the stigma experience in dermatologic disorders. *Cutis* 61(6), 339–342 (1998).
2. Zhang P, Wu MX. A clinical review of phototherapy for psoriasis. *Lasers Med. Sci.* 33(1), 173–180 (2018).
3. Sbidian E, Chaimani A, Garcia-Doval I *et al.* Systemic pharmacological treatments for chronic plaque psoriasis: a network meta-analysis. *Cochrane Database Syst. Rev.* 12, CD011535 (2017).

• **An extensive meta-analysis of 109 studies comparing the efficacy and safety of systemic psoriasis.**

4. Smith CH, Jabbar-Lopez ZK, Yiu ZZ *et al.* British Association of Dermatologists guidelines for biologic therapy for psoriasis 2017. *Br. J. Dermatol.* 177(3), 628–636 (2017).

• **Provides a concise, evidence-based review of biologic therapy choices for patients with psoriasis.**

5. Kalb RE, Bagel J, Korman NJ *et al.* Treatment of intertriginous psoriasis: from the Medical Board of the National Psoriasis Foundation. *J. Am. Acad. Dermatol.* 60(1), 120–124 (2009).
6. Chan CS, Van Voorhees AS, Lebwohl MG *et al.* Treatment of severe scalp psoriasis: from the Medical Board of the National Psoriasis Foundation. *J. Am. Acad. Dermatol.* 60(6), 962–971 (2009).
7. Schlager JG, Rosumeck S, Werner RN *et al.* Topical treatments for scalp psoriasis. *Cochrane Database Syst. Rev.* 2, CD009687 (2016).
8. Tan ES, Chong WS, Tey HL. Nail psoriasis: a review. *Am. J. Clin. Dermatol.* 13(6), 375–388 (2012).
9. Raposo I, Torres T. Palmoplantar psoriasis and palmoplantar pustulosis: current treatment and future prospects. *Am. J. Clin. Dermatol.* 17(4), 349–358 (2016).