

Rozdział 11.

Abstract (streszczenie w języku angielskim)

A better understanding of psoriasis pathogenesis resulted in significant development of new, effective anti-psoriatic therapies, especially for more severe cases. However, it is worth emphasising that about 70-80% of patients with psoriasis suffer from mild disease, and new modalities of topical treatment are urgently needed. The first study aimed to evaluate the effects of cefazolin in 3D human psoriasis skin model and to assess the efficacy and tolerability of topical cefazolin in comparison to topical hydrocortisone butyrate in the treatment of psoriasis. In vitro studies have shown that cefazolin has the properties of a specific inhibitor of several pro-inflammatory cytokines. Ten adult subjects were enrolled to this pilot study and the treatment was continued for 7 days. The disease severity was assessed according to the modified PASI (mPASI) and Investigator Global Assessment (IGA). Patients were also asked to rate concomitant subjective symptoms, treatment tolerability and global therapeutic effect. In 3D human psoriasis skin model cefazolin down-regulated gene expression of HBD2 and psoriasin and did not affect PI3. In the tested conditions the drug did not reduce IL-6 and IL-8 secretion.

Histological evaluation revealed a slight thinning of the epithelium in tissues treated with cefazolin. In patients, both tested regimens resulted in a significant reduction of psoriatic plaques, although the therapeutic effect was significantly better for hydrocortisone butyrate ointment. Both substances significantly reduced pruritus intensity. The treatment with cefazolin was well tolerated and no significant adverse events were observed.

The second study aims to evaluate the effectiveness of 650-microsecond 1064-nm Nd:YAG laser in the therapy of psoriatic plaques and assess the utility of dermoscopy in predicting treatment response. Ten patients with stable plaque-type psoriasis were enrolled. The microsecond Nd:YAG laser treatment was applied to representative plaques on day 0, 7, 14 and 21. Clinical and dermoscopic photographs were performed at each session and follow-up visit. The disease severity was assessed using mPASI and IGA. Patients were asked to rate the intensity of subjective symptoms, tolerability, and final outcome of the treatment. Significant improvement of all mPASI components was observed, although the mean reduction of total mPASI was only about 30%. At baseline, three patients were assessed as “moderate” and seven as “mild” according to IGA, while on day 28, 8 patients were scored as “mild” and two as “almost clear.”

Complete resolution of itching was achieved in all patients. Local adverse reactions were also observed, which resulted in moderate tolerance of treatment in four patients. Three participants reported marked improvement on day 28, although 30% of patients observed no benefit. All subjects with dotted vessels, linear vessels, or hemorrhagic spots under dermoscopy at baseline reported some improvement after laser therapy. Three out of six patients with globular vessels were unresponsive to Nd:YAG laser.

Generalized pustular psoriasis (GPP) is a severe, life-threatening disease that represents a major therapeutic challenge. In the third paper, we have presented two patients with GPP treated with infliximab (Ifx). Case 1 was a 73-year-old woman with GPP who exhibited lack of treatment response or intolerance to standard therapeutic options. Ifx therapy combined with low-dose acitretin resulted in rapid and sustained resolution of skin lesions. Case 2 was a 60-year-old man with GPP and numerous comorbidities who was initially treated with Ifx in combination with methotrexate, with good treatment response for 9 months. Following an infection, a GPP flare was noted at week 38 and methotrexate was changed to low-dose acitretin, while Ifx was continued.

Based on these studies, it has been shown that cefazolin can be considered as an interesting therapeutic option with immunomodulatory and anti-inflammatory properties, but more research is needed to prove its effectiveness and safety. Moreover, it has been demonstrated that microsecond Nd:YAG laser treatment may provide some improvement of psoriatic plaques and inflamoscopy may be useful in identifying patients who will benefit most from the procedure. A literature review and an analysis of the presented cases showed that Ifx seems to be a safe and highly effective treatment option for GPP. Ifx may also be safely combined with low-dose acitretin to achieve long-term control of GPP while maintaining a good tolerance of the therapy.