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LETTER

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Comment on "Antipsoriatic treatments during COVID-19 outbreak"

Dear Editor,

We read with interest "a letter in response" by Di Lernia[1] on a previous "letter to the editor" by Conforti et al[2] published in the *Journal of Dermatologic Therapy*. We found it interesting to expand the discussion in this regard that may be practically helpful for the dermatologists in the era of COVID-19 pandemic. The authors pointed to the plausibility, albeit in vitro studies, of cyclosporine, in the treatment of COVID19. Also, as per the authors, the lower doses of methorexate is less toxic and could be considered. We had explored our opinion regarding the letter by Conforti et al[2] that may be postdated the letter by Di Lernia.[1,3] Herein, we agree with the authors and add more points that would be of interest for further interpretation in this critical time.

Psoriasis is a chronic immune-mediated inflammatory debilitating disease leading to significant morbidity such as depression, cardiovascular disease, and metabolic syndrome, with subsequent burden on patient's and family's quality of life (QoL). Patients with moderate-to-severe psoriasis are inherently at increased risk of developing pneumonias, of any cause.[4] Acute psoriasis flares following established respiratory virus infection, with rhinovirus and coronavirus as the most frequently detected pathogens, without the evidence for group A *Streptococcus* have been reported.[5] A recent study from UK on 338 620 patients with active psoriasis, who were candidate for systemic therapies, was conducted to determine whether patients with psoriasis have a higher risk of hospitalization due to any infection, including respiratory infections, or a higher risk of death due to infections. The authors noted that patients with psoriasis have a small but increased risk of serious infection compared with those without psoriasis. The authors concluded that patients with psoriasis should not be unduly concerned about the risk of serious infection associated with the disease, because the absolute risks are small.[6]

Despite being a bimodal disease, psoriasis increasingly affects the geriatric population (ie, 65 years and older). Schneeweiss et al found no evidence that biologics increased the 6-month risk of serious infections when compared to systemic nonbiologics or phototherapy in elderly patients (≥65).[7] As the immunomodulating actions of conventional systemic agents are dose-related, some Australian experts recommended, in an agreement with Di Lernia proposal,[1] lower doses of immunomodulators in the era of pandemic COVID-19 infection, as the following: azathioprine: ≤0.5 mg/kg/day; cyclosporine: ≤1 mg/kg/day; and methotrexate: ≤10 mg/week in the era of pandemic COVID-19 infection. Immunomodulators dose modification would safely control virus-activated "cytokine storm".[8] The Tumour Necrosis Factor alpha (TNF-α) inhibitors, adalimumab is currently under evaluation for use in treating severe COVID-19 pneumonia. The efficacy and safety of adalimumab in the treatment of moderate-to-severe psoriasis, even at a low doses of 40 mg every week has been reported.[9] Interestingly, there is no evidence of COVID-19-related harm (or any RNA virus) from systemic retinoids. Owing to its efficacy, tolerability and absence of immunosuppressive effect, long-term, low-dose acitretin may be a safe alternative in countries with difficulty accessing biological agents for psoriasis.[10]

Psoriasis treatment goes beyond just being a disease of the skin. Patients-receiving biologics have a relatively high burden of disease severity with negative reflect on the patients' partners/family members QoL. To manage patients with moderate-to-severe psoriasis in the era of COVID-19, lower doses of immunosuppressant/immunomodulator therapies is advisable. Biologic use for psoriatic patients is not absolutely contraindicated in the era of COVID-19, even for elderly patients. Patients at risk of complications, those with serious chronic medical conditions, for example, cardiovascular disease, diabetes, severe hypertension, liver disease, kidney disease, respiratory system compromise, internal malignancies or tobacco use, are to be managed in case-by-case basis. Low-dose acitretin may be a safe alternative when biologics are inaccessible and/or contraindicated or when lower doses are not effective. Treatment adherence and patients' response monitoring may be considered through teledermatology due to the need for social distancing in the time of COVID-19 pandemic.

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