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Letter to the editor

**Topical steroids and topical tacrolimus appear safe regarding the COVID-19 epidemic**



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To the Editor

A warning has been raised concerning the risk of a worse outcome of COVID-19 in patients treated with systemic steroids and non-steroidal anti-inflammatory drugs [1]. This has led to the publication of recommendations concerning optimal management of patients receiving intranasal corticosteroids [2]. Chronic use of topical corticosteroids (TCS) and corticoid-sparing agents such as

tacrolimus constitutes a cornerstone in the management of numerous inflammatory skin diseases. Recently, topical steroids have also been used for the treatment of skin lesions potentially associated with COVID-19 infection [3]. However, no previous studies have investigated the safety of this treatment and its effect on the prevalence and severity of SARS-CoV-2 infection. The aim of this study was to assess the course of a series of patients treated with TCS and/or topical calcineurin inhibitors (TCI) during the COVID-19 epidemic in France.

The study included patients from our department treated with TCS or TCI for over 4 weeks both before and during the COVID-19 pandemic. Patients were phoned to ask whether they had symptoms of COVID-19. If symptoms were present, the caller noted their clinical characteristics and severity, and whether hospitalization or supplemental oxygen were required.

In all 87 patients were included. Briefly, the sex ratio was 1 and the mean age was 50.3 years. The two main indications for TCS and TCI were psoriasis and atopic dermatitis. The types of TCS used were essentially potent (43%) and superpotent (33%). TCI were given to

**Table 1**  
 Description of suspected/confirmed COVID-19 patients treated with TCS or TCI.

	Age	Sex	Disease	Medication	Symptoms	Severe symptoms/hospital admission	RT-PCR for COVID-19
A	37	Female	Superficial pemphigus	Clobetasol propionate Rituximab	Dry cough Fever	No	Negative
B	29	Female	Atopic dermatitis	Betamethasone Dipropionate Tacrolimus ointment	Dry cough Diarrhea Myalgias	No	Not performed
C	33	Male	Lichen planus	Tacrolimus ointment	Dry cough Fever	No	Not performed
D	77	Female	Psoriasis	Betamethasone dipropionate	Headache Fever Dry cough Myalgias	No	Not performed
E	49	Male	Psoriasis	Betamethasone dipropionate Ixekizumab	Fever Myalgias Dry cough Diarrhea	No	Not performed
F	39	Male	Psoriasis	Clobetasol propionate Acitretin	Anosmia/ageusia	No	Not performed
G	51	Male	Psoriasis	Betamethasone dipropionate Ustekinumab	Dry cough Headache Anosmia/ageusia	No	Positive
H	58	Male	Psoriasis	Betamethasone dipropionate Acitretin	Dry cough Fever	No	Positive
I	57	Female	Lichen planus	Clobetasol propionate	Headache Dry cough Myalgias	No	Negative

TCS: topical corticosteroids; TCI: topical calcineurin inhibitors.

18 of 87 patients (21%), either with or without TCS. A concomitant systemic treatment was given to 39% of the patients. None was receiving oral prednisone.

Of the 87 patients, 9 (10.3%) reported symptoms suggestive of COVID-19 infection (Table 1). Of these, 4 were tested for SARS-CoV-2 using RT-PCR and two tested positive. Five of the 9 patients with suspected COVID-19 (55%) were receiving concomitant systemic therapy vs. 4 without ( $P=1.0$ ). Importantly, none of the patients presented severe symptoms requiring hospitalization or supplemental oxygen therapy.

This case series investigated the consequences of treatment with TCS or TCI on the severity of COVID-19 symptoms in patients treated in a dermatology outpatient clinic. The prevalence of SARS-CoV-2 infection in our series is similar to that determined in the same region at the same time [4]. Importantly, no hospital admissions or severe symptoms were seen, indicating the absence of complicated COVID-19 cases among our patients. This result suggests that TCS and TCI are not associated with higher prevalence or severity of SARS-CoV-2 infection. Although 14% of patients were treated with methotrexate, a drug associated with a higher hospitalization rate, the absence of complicated cases supports this finding [5]. Our study deliberately excluded patients with blistering autoimmune diseases as these patients often have multiple comorbidities that would have risked confounding the analysis. By excluding this fragile population, our results indicate that TCI and TCS TCC are safe in patients with inflammatory skin disease and that discontinuation thereof is not currently recommended during the COVID-19 pandemic. However, since our analysis is limited by the small size of our sample, larger prospective studies are needed to confirm these results.

#### Disclosure of interest

The authors declare that they have no competing interest.

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