Correspondence

Incidence of COVID-19 in a cohort of dermatology patients receiving immunomodulating biologic medications

Dear Editor,

Decisions whether to initiate, continue, or discontinue biologic and other systemic immunomodulating medications should be made as a result of patient-centered, evidence-based discussion that can deliver the best outcomes.[1] Some biologics, notably antitumor necrosis factor therapies, are associated with an increased risk of upper respiratory illnesses, as well as increased infections with IL-17 and IL-23 blocking agents.[2] Current studies show that patients on biologics do not have higher rates of COVID-19-related infections or severe outcomes.[3,4] As the pandemic continues, we hope to add to the current data, including further evidence to support the guidelines put in place by dermatology societies.

We performed a retrospective chart review of patients on biologics in three practices in New York, New Jersey, and California, from January to August 2020. One hundred and eighty-three patients with psoriasis, hidradenitis suppurativa, and atopic dermatitis were included. Patient characteristics are summarized in Table 1. Four patients (2.2%) reported mild symptoms suggestive of COVID-19. Two of the four symptomatic patients, tested between April and July of 2020, reported negative PCR-based antigen tests. In our population, there were no hospitalizations for COVID-19.

There were 20.2% ($n = 37$) of patients that interrupted biologic use during the study period; 5.4% ($n = 2$) because of development of COVID-19 symptoms; 45.9% ($n = 17$) per physician advice; and 13.5% ($n = 5$) self-discontinued. Characteristics of patients who discontinued therapy are summarized in Table 2. Psoriasis patients were not at an increased risk of discontinuing medication compared to others. The most commonly discontinued medications included adalimumab, secukinumab, and ixekizumab. Those who discontinued therapy had a mean age of 50.5 years, compared to a mean age of the cohort of 46.9 years, perhaps reflecting greater caution in older patients. A total of 37.8% of those who discontinued therapy ($n = 14$) experienced exacerbation of underlying disease.

Despite our patients being residents of the three early epicenters of the outbreak in the United States, higher than normal COVID-19 infection rates were not reported. Limitations of this study include limited data because of the retrospective nature of the study. The true rate of COVID-19 in our population may be underreported because of the lack of testing early in the pandemic, as well as possible variability in accuracy of early PCR tests. There were not enough reported cases in our cohort to draw inferences about the effect of individual therapies on susceptibility to COVID-19 infection.

Table 1 Patient demographics $n = 183$

Diagnoses	Psoriasis: 81.9% ($n = 150$)
	Hidradenitis suppurativa (HS): 4.9% ($n = 9$)
	Atopic dermatitis (AD): 12% ($n = 22$)
	HS and psoriasis: 0.5% (n = 1)
	AD and psoriasis: 0.5% ($n = 1$)
Sex	Female: 38.3% ($n = 70$)
	Male: 61.7% ($n = 113$)
Age	Range: 18–78 years
	Mean: 46.9 ± 14.6 years
Duration of disease	Mean: 11.33 ± 9.02 years
Duration of biologic therapy	Mean: 3.3 ± 2.9 years
Comorbidities	Hypertension 18.6% ($n = 34$)
	Diabetes 8.2% ($n = 15$)
	Hyperlipidemia 10.4% ($n = 19$)
	Chronic lung disease 1.6% ($n = 3$)
Biologic medications	Etanercept: 0.55%, $n = 1$
	Infliximab: 0%, $n = 0$
	Adalimumab: 22.3%, $n = 39$
	Ustekinumab: 6.01%, $n = 11$
	Guselkumab: 5.46%, $n = 10$
	Secukinumab: 23.5%, $n = 43$
	Ixekizumab: 7.65%, $n = 14$
	Brodalumab: 2.19%, $n = 4$
	Risankizumab: 5.46%, $n = 10$
	Tildrakizumab: 1.64%, $n = 3$
	Dupilumab: 12.57%, $n = 23$
	Apremilast: 13.11%, $n = 24$
	Certolizumab: 0.55%, $n = 1$

Furthermore, early data indicate that there may be a role for biologic immunomodulatory therapies in the treatment of COVID-19 as they can downregulate some of the key cytokines involved in the cytokine release syndrome. Specifically, the acute use of anti-TNF and anti-IL-6 therapies for COVID-19 patients has been shown to be beneficial in small studies, through the interruption of acute-phase protein release, formation of prothrombotic fragments, and capillary leak.[5]

Continuing to treat burdensome dermatologic diseases helps maintain a protective intact skin barrier while also preventing disease exacerbations and keeping patients out of hospitals.[6] Current guidelines from the American Academy of Dermatology and National Psoriasis Foundation, among others, support the continuation of biologic and other immunomodulatory medications during the COVID-19 pandemic for patients who are not experiencing symptoms of COVID-19.[7,8] Our data,

Table 2 Discontinuation demographics (n = 37)

Diagnoses	Psoriasis: 81% (n = 30)
	Hidradenitis suppurativa (HS): 5.4% (n = 2)
	Atopic dermatitis (AD): 10.8% (n = 4)
	Psoriasis and HS: 2.5% (n = 1)
Sex	Female: 32.4% (n = 12)
	Male: 67.6% (n = 25)
Age	Range: 25–78
	Mean: 50.51 ± 15.1 years
Reasons for discontinuation	Per MD because of COVID-19 concerns: 45.9%, n = 17
	Self-discontinued because of COVID-19 concerns: 13.5%, n = 5
	Symptoms of COVID-19: 5.4%, n = 2
	Quiescent disease: 8%, n = 3
	Ineffective therapy: 5.4%, n = 2
	Adverse effect: 8%, n = 3
	Insurance issue: 5.4%, n = 2
	Other: 8%, n = 3
Discontinued drugs	Adalimumab: 27%, n = 10
	Ustekinumab: 2.7%, n = 1
	Guselkumab: 5.4%, n = 2
	Secukinumab: 27%, n = 10
	Ixekizumab: 13.5%, n = 5
	Risankizumab: 2.7%, n = 1
	Tildrakizumab: 2.7%, n = 1
	Dupilumab: 10.8%, n = 4
	Apremilast: 8.1%, n = 3
Status of skin disease after discontinuation of therapy	Stable: 35.1%, n = 13
	Improved: 10.8%, n = 4
	Worsened: 37.8%, n = 14
	Unknown: 16.2%, n = 6

along with data from other larger studies, support following the aforementioned guidelines.[9]

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Serological HTLV profile in patients with cutaneous T-cell lymphoma from a reference center in southern Brazil

Dear Editor,

Viruses are known to be etiologic agents of many types of cancer. Although several studies have suggested viral etiology for mycosis fungoides (MF), the relation to human T-cell lymphotropic virus type I (HTLV-1) remains controversial. On the other hand, the relationship between HTLV infection and adult T-cell leukemia/lymphoma (ATLL) is well established. ATLL is a mature T-cell neoplasm that may show cutaneous manifestations, often clinically undistinguishable of those of MF. Negative HTLV-1 serological tests exclude ATLL. However, when the results are positive, ATLL should be considered. In these cases, including CD25 marker in the immunohistochemical panel of the skin biopsy can also help in the differential diagnosis, since neoplastic cells in ATLL are usually CD25 positive, whereas those from MF are usually negative.[1] According to National Comprehensive Cancer Network (NCCN) guidelines, screening