

protection, working frequency and duration of wearing protective suits. Therefore, to avoid decimation of the active workforce due to irritated skin, we recommend the implementation of effective measures to ensure the integrity of skin barrier of the front-line medical staff, what is more the dermatologist's intervention is necessary.

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SARS-CoV-2 infection in a psoriatic patient treated with IL-17 inhibitor

Editor

We read with great interest the article entitled 'SARS-CoV-2 infection in a psoriatic patient treated with IL-23 inhibitor' published by Messina F. and Piaserico S. in the JEADV.¹ This is the first report of coronavirus disease 2019 (COVID-19) in a psoriatic patient treated with a biologic.

Whilst the authors reported an infection that occurred during therapy with an IL-23 inhibitor, we would like to briefly report one that occurred during therapy with an IL-17 inhibitor.

The case here reported is peculiar for two reasons: (i) the patient was infected during the induction regimen; (ii) he was completely asymptomatic. He was a 55-year-old general

practitioner, with a 4-year history of psoriasis, previously treated with conventional drugs and the biological drug adalimumab.

On January 20, due to a worsening of the psoriasis, he was switched to ixekizumab and started the currently approved induction dosing regimen (160 mg at week 0, followed by 80 mg at weeks 2, 4, 6, 8, 10 and 12).

On March 3, following contact with a COVID positive patient, even though he was completely asymptomatic, he was tested for SARS-CoV-2, and resulted positive.

Although we advise all biological-treated patients to report any alteration in their health status, he did not inform us and decided to continue biological therapy as formerly prescribed.

Since our Psoriasis Outpatient Service suspended all follow-up visits, in accordance with the directives of the Regional Health Service, we contacted all scheduled patients by phone. We were informed of his history only when we called him on April 2 after his second test had already resulted negative (i.e. the patient could be considered healed). He confirmed never having suffered from cough, dyspnoea, anosmia, ageusia, myalgia or any other symptom of the infection.

There are some evidences that IL-17 is implicated in acute respiratory distress syndrome, which is the major life-threatening complication of COVID-19,² as well as observations that an aberrant Th17 polarization may correlate with a worse outcome in coronavirus-related pneumonia.³

Since the inhibition of IL-17 pathway may have beneficial effects in treating COVID-19,⁴ ixekizumab associated with antiviral drugs is being investigated for the treatment of COVID-19 infection.¹

However, all the previous observations and studies concern cases characterized by progression of the disease towards an abnormal and exaggerated inflammatory response, similar to cytokine release syndrome, that can be considered a secondary phase of the SARS-COV-2 infection.


On the contrary, the case here reported seems to suggest that blockade of IL-17 does not negatively affect the primary phase of infection that is the virus binding to human cells and its replication, since our patient was on continuous medication with ixekizumab and furthermore was following the induction regimen, taking the drug every other week.

In conclusion, our observation strengthens the hypothesis that IL-23/IL-17 axis inhibition might not be detrimental in the setting of COVID-19 infection, even though it remains of utmost importance to collect more evidences and to gather as many cases as possible related to psoriasis patients in biological therapy who have contracted COVID-19, in order to better quantify the risk of infection under biologic therapy.⁵

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All authors have agreed to the contents of the manuscript in its submitted form.

The patients in this manuscript have given written informed consent to publication of their case details.

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The use of Google Trends for acral symptoms during COVID-19 outbreak in France

Editor

Cutaneous manifestations associated with COVID-19 start to get increasingly described.^{1–3} However, the link of causality remains

uncertain. Reports of chilblains-like lesions circulate on social medias and have appeared in the literature.^{4,5} Google Trends (GT) provides data on the relative search volumes (RSV) of queries and topics over time and across geographical areas (<https://trends.google.com/trends/>). It allows seasonal and long-term assessment of trends in the public interest, including during COVID-19 outbreak.^{6–8} We investigated whether there was a surge in individuals searching for information related to acral eruption during the COVID-19 epidemic in France.

We analysed the data generated through GT, for RSV of the following terms ‘coronavirus doigts’ (‘fingers’) and ‘coronavirus orteils’ (‘toes’) in France for the past 5 months (1 December 2019 to 19 April 2020). We used as a control symptom, anosmia, using the following search ‘coronavirus odeur’ (‘smell’) during the same period. We performed the same search with epidemic influenza (‘grippe doigts’, ‘grippe orteils’ and ‘grippe odeur’) and chilblains (‘engelures’ as topic) for the past 5 years. Of note, ‘coronavirus’ was a better search word than ‘COVID’ or ‘COVID-19’. Results are displayed as a set of time series. The values are not the actual search counts but percentages relative to the total searches across the specified geography and time period. The resulting numbers are then scaled from 0 to 100 based on the proportion to all searches on all topics. All data used in this study are publicly available, anonymous and cannot be traced back to identifiable individuals. The study did not require ethical approval by an institutional review board.

Mean RSV by month increased regularly for ‘coronavirus fingers’: 0.7 ± 4.1 (January), 3.5 ± 9.0 (February), 26.2 ± 24.4 (March) and 36.7 ± 21.6 (mid-April) and ‘coronavirus toes’, with a 1-month delay: 2.0 ± 6.3 (March) and 9.4 ± 11.3 (mid-April; Fig. 1). The first search for ‘coronavirus fingers’ started as early as 25 January 2020, and searches increased around 3 March

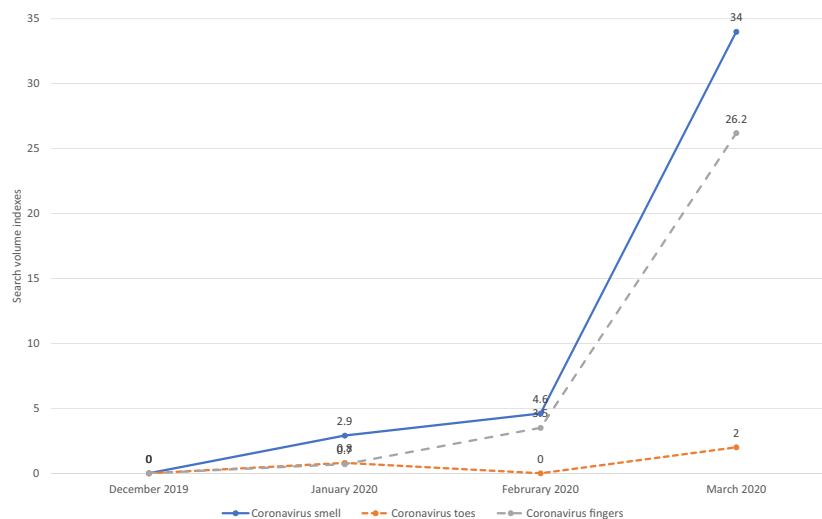


Figure 1 Mean values for search volume indexes on Google Trends for ‘coronavirus smell’, ‘coronavirus toes’ and ‘coronavirus fingers’, in France, between December 2019 and April 2020, by months.