

**LETTER**DERMATOLOGIC  
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# Management of adult patients with severe atopic dermatitis treated with dupilumab during COVID-19 pandemic: A single-center real-life experience

Dear Editor,

Herein we report our real-life experience with atopic dermatitis (AD) patients treated with dupilumab in an Italian area of high epidemic for COVID-19.<sup>1,2</sup>

Up today, Lombardy is the northern Italian region most affected by COVID-19 with a total of positive cases exceeding 79 000.<sup>3</sup>

In the region, Brescia is the second largest province in terms of population (with a total amount of 1 265 954 people registered in 1 January 2019)<sup>4</sup> and is currently the most affected one by the epidemic with over 13 000 cases.<sup>3</sup> Spedali Civili Hospital was the reference center for the treatment of COVID-19 positive patients, with over 800 total admissions in the period of highest emergency.

Herein, we report our experience in managing adult patients affected by AD, treated with dupilumab and followed-up at the Dermatology Unit at the time of the outbreak of the epidemic in February 5, 2020.<sup>5</sup>

Our series included 71 adult patients, 41 males, and 30 females, with an average age of  $46.5 \pm 18.7$  years (range 18-86 years). The average duration of dupilumab treatment was 7.8 months.

In order to ensure care continuity and to limit hospital access during the pandemic period, a telephone triage was carried out before the scheduled visits so as to identify any patient suspected of being infected with COVID-19.

If no COVID-related symptoms or recent contact with COVID-positive cases were assessed, patients were free to choose whether to come to the hospital for dermatological visit for themselves or to be telematically evaluated. In this regard, we created a specific phone line and email address, to which patients could refer sending clinical reports along with photographs.

Remarkably, most patients ( $n = 56$ , 78.9%) preferred to be physically evaluated, despite the concern with accessing to a COVID-19 hospital. Only five patients (7%) chose to be evaluated by using phone-consultation fearing a possible contagion by going to hospital. Nevertheless, these patients still decided to continue the therapy. Four patients (5.6%), even if informed about the non-immunosuppressive mechanism of the drug, autonomously discontinued dupilumab and canceled scheduled visits, fearing a possible worsening effect of the drug on the risk of COVID infection. Other six patients temporarily interrupted therapy and/or postponed their scheduled appointment because of COVID-related problems: two patients (2.8%) were quarantined after a contact with COVID

positive subjects but never developed symptoms; two patients (2.8%) reported transient fever in the absence of contacts with COVID subjects; two patients (2.8%) reported confirmed COVID-19 infection. As for the last two patients, the former was a 52-year-old healthy woman who developed fever, conjunctivitis and gastrointestinal symptoms which spontaneously resolved without specific therapy. The latter, a 53-year-old woman with multiple comorbidities (asthma, hypertension, severe obesity, depressive syndrome) was hospitalized for fever, cough, and dyspnea and was treated with noninvasive ventilation, oxygen therapy, darunavir/cobicistat, and hydroxychloroquine, without sequelae.

In light of our data and considering dupilumab inhibition of IL-4 and IL-13,<sup>6</sup> we can confirm that the drug does not seem to increase the risk of infection by COVID-19 or worsen its clinical course in patients with severe AD.

Importantly, most patients with AD confirmed their scheduled visits at the hospital and continued the therapy. This may have been influenced by the seasonality of AD symptoms and the worsening tendency of atopic patients during spring. Therefore, they had greater need and desire for direct care. Furthermore, patients who preferred telematic refertation were older (average age 60.2 vs 43.6). We can deduce that in younger people the risk perception of COVID-19 contact and of a worse clinic disease course is probably weaker, which consequently does not condition therapeutic choices.

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