Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Reply: "Biologics for psoriasis during COVID-19 outbreak"

To the Editor: We read with interest the letter by Lebwohl et al,[1] "Should biologics for psoriasis be interrupted in the era of COVID-19?" We share the concern that has been expressed about the possible impact of biologic therapies on the patient's susceptibility to COVID-19 infection. In addition to the infectious complications for biologic therapies reported during pivotal trials for psoriasis, we would like to draw attention to other aspects that might guide the decision whether to continue biologic therapy during the COVID-19 pandemic.

From a pathophysiologic point of view, a release of large amounts of proinflammatory cytokines, including some of those overexpressed in psoriasis, such as tumor necrosis factor-α and interleukin (IL)-33, occurs in patients with severe COVID-19, in particular during the acute respiratory distress syndrome, which is the main cause of death from the infection.[2] Pathogenesis of the widespread lung damage associated with severe acute respiratory syndrome (SARS) coronavirus, which shares many etiologic, clinical, and pathologic features with COVID-19, has been hypothesized to be caused more by an exaggerated immune response than the virus itself.[3]

This implies that immune dysregulation is regarded as a highly important therapeutic target, and a clinical trial is currently evaluating adalimumab in severe COVID-19 pneumonia.[4] Notably, a significant elevation in tumor necrosis factor-α and also IL-17 was found in plasma samples of patients with Middle East respiratory syndrome (MERS) coronavirus,[5] another respiratory disease caused by a similar coronavirus and associated with high morbidity and mortality. In contradistinction, IL-12 blockade might impair the antiviral cytokine interferon-γ production. However, it must also be noted that patients with inherited defects in IL-12 signaling do not seem to be as severely affected by infection with respiratory viruses.

Italy is strongly involved with COVID-19. Presently, an operating instruction on biologic therapies has been implemented in our hospital immunology network and shared by dermatologists, rheumatologists, and gastroenterologists. Patients treated with biologics are classified in 4 categories and treated according to their own characteristics as follows:

1. Patients not showing symptoms, or with mild respiratory symptoms (such as mild cough without fever) and without close contact with confirmed COVID-19 patients: biologic therapy is continued.
2. Patients experiencing moderate or severe respiratory symptoms (fever, cough, or difficulty breathing, or all 3) without close contact with confirmed COVID-19 patients: preventive transient interruption of biologic therapy until complete remission of respiratory symptoms and at least 72 hours without fever.
3. Patients with mild respiratory symptoms and contact history with COVID-19 patients: preventative treatment discontinuation of biologic therapy until laboratory-confirmed negativity for the COVID-19 virus.
4. Patients with moderate to severe respiratory symptoms and close contact or contact history with COVID-19 patients or with clinical/radiologic criteria consistent with COVID-19: interruption of biologic therapy and prompt admission to COVID hospital.

A case-by-case evaluation in a high-risk population, such as older patients with cardiovascular and pulmonary comorbidities, should be cautiously performed.

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Reprints not available from the authors.

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