Use of Corticosteroid in Persistent Post–COVID-19 Interstitial Lung Disease

To the Editor:

We read with interest Dr. Myall and colleagues systematic and structured assessment of a large cohort of patients after hospitalization with coronavirus disease (COVID-19) during the first wave (1). It is encouraging to see that the majority of patients (76.3%) with ongoing symptoms at telephone screening did not have radiological evidence of persistent lung disease. This study demonstrated that the majority of patients with persistent post–COVID-19 interstitial changes at 6 weeks postdischarge had an organizing pneumonia–like pattern with bilateral subpleural ground-glass infiltrates with a mid- to lower-zone distribution. We wonder how many patients had a baseline computed tomography (CT) on admission, which would be useful to truly understand the natural progression of the disease. There has been a suggestion that COVID-19–induced secondary organizing pneumonia is highly prevalent, even in the acute phase (2).

The study showed a dramatic improvement in symptoms and physiologic parameters with 3 weeks of steroids at a mean of 61 days postdischarge. We wonder if the outcome would be better with initiation of steroids in the acute phase. In this study, only 17.1% of patients had inpatient steroid treatment, as this cohort of patients were admitted during the first wave before the adoption of RECOVERY (Randomised Evaluation of COVID-19 Therapy) trial protocol, which recommended use of 6 mg dexamethasone daily for 10 days in all patients who are receiving respiratory support (3). Over 80% of patients who required oxygen therapy for over 24 hours would have received steroids in the acute phase if recommendations from the RECOVERY trial were followed. This may influence the proportion of patients with persistent interstitial changes and treatment effects of steroids postdischarge.

We note that the CT scans were not formally scored as this was not primarily a radiological study. However, it would be interesting to know the prevalence of fibrotic changes such as traction bronchiectasis, parenchymal bands, or reticular shadowing, which were not reported in this study. The authors described some patients with a fibrotic organizing pneumonia pattern as evidenced by traction bronchiectasis with bilateral subpleural ground-glass infiltrates with no reference to the prevalence and response to steroids. We wonder if this group of patients was less likely to benefit from steroids compared with the nonfibrotic pure ground-glass organizing pneumonia pattern.

In this study, although 45.7% of patients with interstitial lung disease were mechanically ventilated, reassuringly, only 5% had fixed changes with minor ground-glass shadowing. The remainder either had minor changes (<15% of lung involvement) or steroid responsive organizing pneumonia. In another study, almost half of all discharged patients had evidence of fibrosis on follow-up CT scans (4). In our hospital (Homerton University Hospital, London, United Kingdom), we are seeing more patients, especially those with prolonged weaning of ventilation and oxygen, with significant fibrotic changes.

Looking at a 15-year follow-up study in severe acute respiratory syndrome, most pulmonary lesions recovered within 1 year, and high-dose steroid was associated with femoral head necrosis (5). Given that some patients seem to recover fully without steroid treatment (6), we wonder if the authors would recommend steroid treatment in all such cases, or if they would recommend a controlled study before making such a recommendation?

Author disclosures are available with the text of this letter at www.atsjournals.org.

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