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.

Is the HScore useful in COVID-19?

Puja Mehta and colleagues[1] suggest using the HScore[2] to detect hyperinflammatory states in patients with coronavirus disease 2019 (COVID-19). The HScore is validated for the diagnosis of secondary haemophagocytic lymphohistiocytosis (sHLH), a condition that shares a similar cytokine profile to severe COVID-19.

However, emerging clinical data in severe COVID-19 infection highlight HScore limitations.[3,4] Leukopenia increases the likelihood of sHLH in the HScore, whereas severe COVID-19 has leukocytosis with leukocyte subset lymphopenia. The HScore misses this important distinction. Although hyperferritinaemia, a hallmark of sHLH, occurs in severe COVID-19, ferritin concentrations rarely reach the HScore threshold of 2000·0 ng/mL until late in disease, limiting early intervention.

In a review of 191 patients with COVID-19 admitted to hospital,[3] the IQR of ferritin concentrations at time of admission in non-survivors was 728·9–2000·0 ng/mL, and the median ferritin did not exceed 2000·0 ng/mL until 16 days after symptom onset, when most patients had experienced acute respiratory distress syndrome requiring intubation. Other HScore criteria such as hypertriglyceridaemia, splenomegaly, hepatomegaly, and bone marrow haemophagocytosis are not reported in most cohort studies of COVID-19. Finally, high fevers are weighted heavily in the HScore; however, temperature above 39·0°C does not distinguish between patients with moderate versus severe COVID-19.[4]

In summary, although we agree that the detection and management of hyperinflammatory states in COVID-19 is important, we recommend against using the HScore due to a potential lack of sensitivity.

We declare no competing interests.

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