

LETTERS

Lung ultrasonography in a woman with COVID-19: This examination could be remote

We applaud the efforts of Thomas and colleagues,¹ in recognizing the utility of lung ultrasonography as a valuable tool in the workup of patients with suspected coronavirus disease 2019 (COVID-19). They reported multifocal B-lines, pleural thickening and subpleural consolidation, similar to the findings of Peng and colleagues,² who reported that lung ultrasonography gave similar results to computed tomography of the chest but with markedly simplified logistics. Both examinations may show findings even before polymerase chain reaction (PCR) results.

We want to also stress the logistical attributes of lung ultrasonography that include ease of performance and remote interpretation using telemedicine. Front-line health care providers are increasingly acquiring COVID-19, and there are worldwide concerns regarding inadequate personal protective equipment. Remote tele-mentored ultrasonography (RTMUS) is just one format of telemedical communication, but it provides a wealth of anatomic and physiologic information that can be

remotely interpreted from anywhere in the world with Internet connectivity.

We previously showed that lung ultrasonography can be performed accurately with economical mobile equipment by nonphysicians who are guided remotely,^{3,4} a paradigm largely started to support space medicine.⁵ In addition to augmenting diagnosis, we also suggest that RTMUS might help ongoing screening at home for self-isolating adults at risk of or with self-limited COVID-19. We propose that a family member or the patient could be guided to examine their lung fields as an early warning of COVID-19 progression, allowing earlier rescue to a higher level of assessment for those patients who deteriorate during home isolation.

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Competing interests: Andrew Kirkpatrick is the principal investigator of the COOL trial (<https://clinicaltrials.gov/ct2/show/NCT03163095>), with partial unrestricted funding from Acclivity. He has also consulted for Innovative Trauma Care and SAM Medical Products. Jessica McKee is the Research Director of Innovative Trauma Care and has consulted for Aceso, SAM Medical Products and Acclivity. Andrew Kirkpatrick and Jessica McKee also disclose a personal relationship.