Letter to Editor

Role of Point of Care Ultrasound in Critically Ill Suspect and Confirmed COVID-19 Patients in Nepalese Context

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To the Editor,

The need to guarantee both the patients' rights to be evaluated and managed according to the highest standards of care and, at the same time, the safety of health-care workers who are involved in the management of critically ill patients with COVID-19 is of paramount importance. Due to insufficient number of health care workers as well as COVID-19 incompatible health care setup in Nepal, it is important that the minimum number of health-care workers and medical devices be exposed to suspected or confirmed cases of COVID-19.

The standard method of doing an objective examination by stethoscope and carrying out any radiological tests, such as chest radiography or chest CT increases the possibility of contamination of the medical devices and nosocomial spreading of the virus leading to infection of health-care workers (from doctor to nurse to radiology technicians) and then on to hospitalized patients who have a higher risk of developing severe COVID-19 and death.

Practically, doing auscultation while wearing a full set of Personal Protective Equipment is very difficult. Thus, the need of a tool that can help in initial assessment, guiding management as well as daily follow up of the patient. In this context, Point of Care Ultrasound (POCUS) is an invaluable tool both for diagnosis of COVID-19 and related complication as well as in guiding the management.

An interesting study showed that even eighth grade student were able to obtain clinically meaningful images on POCUS.[1] Thus, when utilized properly, all post MBBS doctors can be trained in POCUS through webinar and telemedicine. In cases where image interpretation is a problem, tele-medicine can also be utilized and image interpretation done remotely. The utility of POCUS is diverse and encompasses daily lung ultrasound replacing both the stethoscope and Chest X-ray. Similarly, critical care echocardiogram can be performed on site. Its role is established in securing vascular access, haemodynamic management, confirming tube placement during intubation, detecting ventilator related complications as well as predicting the success of extubation in a patient.

All these can be done with a single machine, at the point of care and with no time lag. The machine ranges from portable laptop size machines to even handheld wireless devices. These machines are available in most health setups and need to be made available in other places as well. At the same time, cleaning of machine post use is easy and simple.[2]

POCUS has been utilized in the management of suspect and diagnosed COVID-19 patient in our setup. The ease of learning, coupled with the vast clinically important clues provided by POCUS in diagnosis as well as management makes its use mandatory in the management of critically ill COVID-19 suspect and confirmed COVID-19 patients.

Thus, we propose that POCUS be taught to all doctors who take part in the clinical management of critically ill COVID patients.

References

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