

Author Response

Arjun Ramaswamy¹, Rohit Kumar², Pranav Ish³, Nitesh Gupta⁴**Keywords:** Diaphragm, Paracostal muscles, Weaning.*Indian Journal of Critical Care Medicine* (2024): 10.5005/jp-journals-10071-24671**Dear Editor,**

We appreciate the comments provided by Mandal et al. in response to our study.¹ We welcome the opportunity to address their queries and provide further clarification on our findings.

Firstly, we confirm that our study did not include coronavirus disease-2019 (COVID-19) patients. Our cohort primarily consisted of patients with hypoxemic respiratory failure, with the majority presenting with acute respiratory distress syndrome (ARDS), followed by patients who had hypercapnic respiratory failure and altered sensorium.² It is important to note that our hospital operated a separate ICU dedicated to COVID-19 patients, and all study participants were screened for COVID-19 before admission to the pulmonary intensive care unit (ICU).

Secondly, our study identified an inverse relationship between parasternal intercostal muscle thickness fraction (PICTF%) and weaning success.³ This observation underscores the significance of poor diaphragm function, which leads to increased parasternal muscle activity. While the etiology of weaning failure requires further evaluation, the advantage of measuring PICTF% lies in its ability to accurately predict weaning success without the need for direct assessment of diaphragm activity. However, we acknowledge that additional diagnostic evaluations may be necessary to determine the underlying cause of weaning failure in individual patients.⁴

Thirdly, a majority of our patients were managed using lung protective ventilation strategies for ARDS, with ventilatory settings in line with institutional protocols. Notably, minimal pressure support was provided during spontaneous breathing trials, however, recruitment maneuvers were not performed due to unclear evidence supporting their efficacy in our clinical context.^{3,4}

In conclusion, we concur with Mandal et al. that parasternal intercostal muscle ultrasound represents an emerging and valuable tool in the intensive care setting for predicting weaning success. We appreciate their engagement with our study and welcome further discussion and collaboration to advance our understanding of respiratory care in critically ill patients.

AUTHOR'S CONTRIBUTION

PI, NG: involved in Conceptualization, literature search, writing the original draft of manuscript, literature search, planning, conduct

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REFERENCES

1. Mandal M, Bhattacharya D, Esquinas AM. Parasternal intercostal muscle thickness fraction: Ultrasound a new tool for weaning prediction. *Indian J Crit Care Med* 2024. (Accepted) Manuscript ID: IJCCM_24_84.
2. Havaladar AA, Krishna B. Wean to win. *Indian J Crit Care Med* 2023;27(10):695–696. DOI: 10.5005/jp-journals-10071-24556.
3. Grasselli G, Calfee CS, Camporota L, Poole D, Amato MBP, Antonelli M, et al. ESICM guidelines on acute respiratory distress syndrome: Definition, phenotyping and respiratory support strategies. *Intensive Care Med* 2023;49(7):727–759. DOI: 10.1007/s00134-023-07050-7.
4. Qadir N, Sahetya S, Munshi L, Summers C, Abrams D, Beitler J, et al. An update on management of adult patients with acute respiratory distress syndrome: An official American thoracic society clinical practice guideline. *Am J Respir Crit Care Med* 2024;209(1):24–36. DOI: 10.1164/rccm.202311-2011ST.