

of oxygenation improvement. The ultrasonographic semi-quantitative scores have also been used to predict the effectiveness of prone position ventilation.

Overall, lung ultrasonography has the potential and unique advantages in the diagnosis, treatment, and prognosis of COVID-19 patients who require gas exchange support. Moving forward, we need well-designed clinical studies to validate the use of lung ultrasonography in facilitating decision-making and improving outcomes in mechanically ventilated COVID-19 patients.

### Competing Interests

The authors declare no competing interests.

Lina Zhang, M.D., Ph.D., Lize Xiong, M.D., Ph.D., Lingzhong Meng, M.D. Shanghai Fourth People's Hospital, Tongji University School of Medicine, Shanghai, China (L.X.).  
mzkxiz@126.com

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### References

1. Rigatelli G, Zuin M, Rigatelli A, Zuliani G, Roncon L: Intubation and ventilation amid COVID-19: Comment. *ANESTHESIOLOGY* 2020; 133:464–5
2. Meng L, Qiu H, Wan L, Ai Y, Xue Z, Guo Q, Deshpande R, Zhang L, Meng J, Tong C, Liu H, Xiong L: Intubation and ventilation amid the COVID-19 outbreak: Wuhan's experience. *ANESTHESIOLOGY* 2020; 132:1317–32
3. Peng Q, Wang X, Zhang L, Group CCCUS: Findings of lung ultrasonography of novel corona virus pneumonia during the 2019–2020 epidemic. *Intensive Care Med* 2020. doi: 10.1007/s00134-020-05996-6. [Epub ahead of print]
4. Bouhemad B, Brisson H, Le-Guen M, Arbelot C, Lu Q, Rouby JJ: Bedside ultrasound assessment of positive end-expiratory pressure-induced lung recruitment. *Am J Respir Crit Care Med* 2011; 183:341–7
5. Wang XT, Ding X, Zhang HM, Chen H, Su LX, Liu DW; Chinese Critical Ultrasound Study Group (CCUSG): Lung ultrasound can be used to predict the potential of prone positioning and assess prognosis in patients with acute respiratory distress syndrome. *Crit Care* 2016; 20:385

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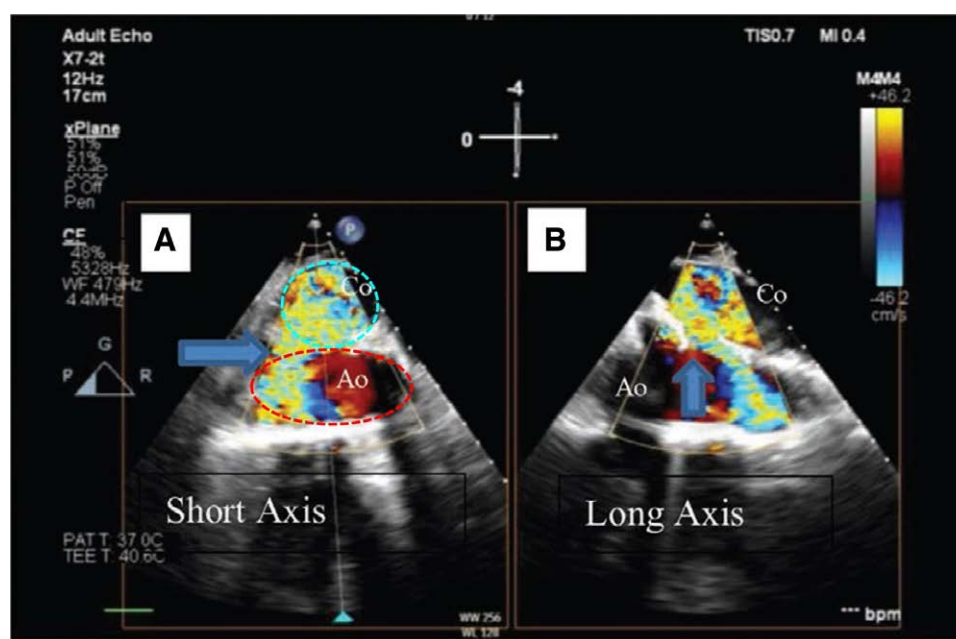
## Transesophageal Echocardiogram to the Rescue in Diagnosing Ascending Aortic Pseudoaneurysm: Comment

### To the Editor:

We read with great interest the article by Yu and Fabbro.<sup>1</sup> However, we found an error in that the labels (Co [suprasternal collection] and Ao [ascending aorta]) in *right image A* and *B* of the original article were all opposite. The reasons are as follows.

The shape of the ascending aorta in mid-esophageal ascending aortic short-axis view should always be round (fig. 1, *blue circle*) rather than oval (fig. 1, *red circle*). In the *right image A* and *B*, the inappropriately low Nyquist limit of 46.2 cm/s overestimated the flow velocity in cavity labeled Co might misguide the authors to regard the laminar flow in ascending aorta as turbulent flow in fluid collection.<sup>2</sup> Besides, the proximal jet width widened steeply after the flow went through rupture site followed by filling the whole cavity labeled Co, which was unconventional. The simultaneous existence of red and blue (laminar flow), brighter color (turbulent flow), even black (no flow) in the color Doppler box, and the accelerated flow began from the opposite cavity wall of the rupture site in the cavity labeled Ao, were also illogical. Crucially, the images *A* and *B* were obtained by xPlane mode, and the flow direction should be from left (ascending aortic proximal site) to right (ascending aortic distal site) in the view (fig. 1B).<sup>3</sup> Hence, the jet direction through narrow rupture site should be from upper left to lower right (fig. 1B), followed by the shunt widening gradually, and the red flow in the cavity labeled Ao might be due to the blood flow diverting direction toward the probe by the hit of the cavity wall.

In short, we suggest that the authors exchange the sites of labels Ao and Co in the *right image A* and *B*. Our view-point would be confirmed if the authors offer the video and spectral Doppler of the shunt in rupture site. This article would be more accurate and useful to readers with correct labels attached.



**Fig. 1.** The mid-esophageal ascending aortic view of the original article. Blue circle: round; Red circle: oval.

## Competing Interests

The authors declare no competing interests.

Mi Chen, M.D., Yang Yang, M.D., Xiaohua Zou, M.D., Ph.D., Wenqi Zhang, M.D., Xianggang Zeng, M.D. Affiliated Hospital of Guizhou Medical University, Guiyang, Guizhou, China (X.Zeng). M. Chen and Y. Yang contributed equally to this work. [anesthbernini@outlook.com](mailto:anesthbernini@outlook.com)

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## References

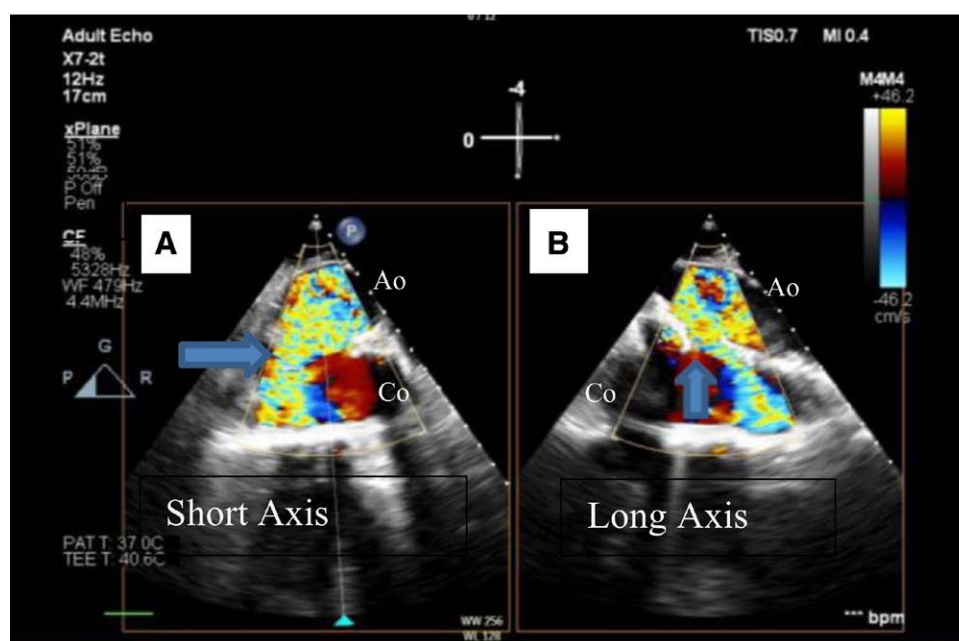
1. Yu S, Fabbro M II: Transesophageal echocardiogram to the rescue in diagnosing ascending aortic pseudoaneurysm. *ANESTHESIOLOGY* 2020; 132:158
2. Vegas A: Perioperative Two-Dimensional Transesophageal Echocardiography: A Practical Handbook, 2nd edition. Cham, Switzerland, Springer International Publishing AG, 2018, pp 42
3. Vegas A: Perioperative Two-Dimensional Transesophageal Echocardiography: A Practical Handbook. New York, Springer Science+Business Media, LLC, 2012, pp 138

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## Transesophageal Echocardiogram to the Rescue in Diagnosing Ascending Aortic Pseudoaneurysm: Reply

### In Reply:

I thank Dr. Chen *et al.* for their comments<sup>1</sup> and for their interest in my article.<sup>2</sup> After review of the images, I agree that the labels Co (pseudoaneurysm collection) and Ao (aorta) in the right image A and B should be switched. Although Dr. Chen *et al.* bring up important points as to why the labels should be switched, I believe the main reason to switch the labels is that the pseudoaneurysm was anterior to the ascending aorta and should be in the far field or further from the probe.<sup>3</sup> Below is the figure with the corrected labels. Their reason that in the mid-esophageal ascending aortic short-axis view the aorta should always be round does not always apply, especially in postcardiac surgery patients, which is a risk factor for pseudoaneurysm.<sup>4</sup> Also, the recommended range for evaluating the aorta with color flow Doppler is a Nyquist of 50 to 70 cm/s, but Nyquist is affected by the box size and depth.<sup>5</sup> To evaluate the



**Fig. 1.** Midesophageal ascending aorta short axis (A) and long axis (B). Co, pseudoaneurysm collection; Ao, aorta.

opening of the pseudoaneurysm, a larger box size was used to image the area of flow from the aorta to the pseudoaneurysm. Our Nyquist limit was lower than recommended range, but turbulence flow entering the pseudoaneurysm can be expected as a result of the narrow opening of the pseudoaneurysm.<sup>6</sup>

### Competing Interests

The author declares no competing interests.

Soojie Yu, M.D., Banner University Medical Center/University of Arizona, Tucson, Arizona. sooj107@gmail.com

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### References

1. Chen M, Yang Y, Zou X, Zhang W, Zeng X: Transesophageal echocardiogram to the rescue in diagnosing ascending aortic pseudoaneurysm: Comment. *ANESTHESIOLOGY* 2020; 133:466–7
2. Yu S, Fabbro M II: Transesophageal echocardiogram to the rescue in diagnosing ascending aortic pseudoaneurysm. *ANESTHESIOLOGY* 2020; 132:158
3. Vegas, Annette: Perioperative Two-Dimensional Transesophageal Echocardiography: A Practical Handbook. 2nd edition. Cham, Switzerland, Springer International Publishing, p 4
4. Parihar B, Choudhary LS, Madhu AP, Alpha MK, Thankachen R, Shukla V: Pseudoaneurysm of ascending aorta after aortic valve replacement. *Ann Thorac Surg* 2005; 79:705–7
5. Vega, Annette: Perioperative Two-Dimensional Transesophageal echocardiography: A Practical Handbook. 2nd edition. Cham, Switzerland, Springer International Publishing, pp 42–3
6. Vignon P, Guéret P, Vedrinne JM, Lagrange P, Cornu E, Abrieu O, Gastinne H, Bensaid J, Lang RM: Role of transesophageal echocardiography in the diagnosis and management of traumatic aortic disruption. *Circulation* 1995; 92:2959–68

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## Preoperative Frailty Assessment: Comment

To the Editor:

We read with interest the article by Sonny *et al.*<sup>1</sup> comparing two methods for frailty measurement in the ability to predict hospital length of stay after noncardiac surgery.