# Reply to opinions about intraaortic balloon pumping under venoarterial extracorporeal membrane oxygenation

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*Provenance:* This is an invited Letter to Editor commissioned by the Section Editor Lei Huang (Cardiac center of Tianjin Third-Central Hospital, Tianjin, China).

Response to: Nuding S, Werdan K. IABP plus ECMO-Is one and one more than two? J Thorac Dis 2017;9:961-4.

Scandroglio AM, Pieri M, Pappalardo F, *et al.* Intra-aortic balloon pump during venoarterial extracorporeal membrane oxygenation: still a matter of debate? Contemporary multi-device approach to cardiogenic shock. J Thorac Dis 2017;9:E522-4.

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# Authors reply to "IABP plus ECMO—is one and one more than two?"

We thank Nuding and Werdan for their interest in our study. We respectfully disagree with their comment that it is unknown if IABP combined with VA-ECMO improves macro- and microcirculation more than VA-ECMO alone. Recent studies showed that IABP combined with VA-ECMO improved macro- and microcirculation, compared with VA-ECMO alone (1-3). According to our results and recent studies, IABP combined with VA-ECMO was theoretically and clinically more effective than VA-ECMO alone. We agree with Nuding and Werdan's comment that randomized control trial with the endpoint "survival" is required to evaluate the effect of IABP combined with VA-ECMO. This may be true, and we hope they will do it themselves.

## Authors reply to "IABP during VA ECMO: multidevice mechanical circulatory support approach for acute cardiogenic shock"

We thank Scandroglio and colleagues for their interest in our study. We agree with Scandroglio and colleagues' comment that the role of IABP for patients treated with ECLS in the setting of cardiac arrest should be further evaluated. Patients receiving out-of-hospital cardiopulmonary resuscitation were excluded in our study in order to measure the effect of IABP accurately. We also agree that further cardiac life-supporting devices that reduce preload should be developed.

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None.

#### Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

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Aso and Yasunaga. Authors reply

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