CORRESPONDENCE

Four situations in which ECMO might have a chance: response to Staudacher et al.

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Dear Editor,

We thank Staudacher et al. for their interest [1] in our brief article entitled “Ten situations in which ECMO is unlikely to be successful” [2]. Although data to support the combination of venoarterial (VA)-extracorporeal membrane oxygenation (ECMO) and left ventricular unloading device (e.g., Impella®) are scarce, with variable outcome to date, we fully agree this strategy could be discussed as a bridge to recovery, bridge to another mechanical device or to heart transplantation. However, in the study cited reporting 40 % of survival, only three patients received an Impella® in addition to ECMO, and none had premorbid aortic regurgitation [3]. In our opinion, refractory cardiogenic shock associated with severe aortic regurgitation should require immediate aortic valve surgery.

We concur with Dr. Staudacher and colleagues that ECMO might be a salvage therapy in case of septic cardiomyopathy with left or right refractory heart failure. Our purpose was to highlight the gap in the results observed for peripheral VA-ECMO therapy during refractory septic shock depending on the hemodynamic profile of the patient. Indeed, in case of septic shock associated-refractory vasoplegia with preserved cardiac output, ECMO support seems to be of little value. Alternatively, acceptable survival rates and preserved long-term quality of life were reported when VA-ECMO was initiated in septic shock patients with severely impaired cardiac function [4].

ECMO-treated severe acute respiratory distress syndrome (ARDS) in the context of allogeneic stem cell transplantation (ASCT) has been consistently associated with poor outcome in small pediatric and adult case series. However, we concede that studies focused on its

use in this specific adult population are warranted before denying ECMO to any ASCT patient.

Lastly, we agree that a multifaceted pre-ECMO evaluation, rather than using age as a unique factor, might be more suitable to estimate long-term prognosis after ECMO. However, Karagiannidis et al. recently highlighted that mortality steadily increased with increasing age, with in-hospital mortality almost reaching 80 % in patients over 80 years old [5] compared to less than 40 % in younger patients. Beyond patient's age, associated comorbidities should also be taken into account.

Compliance with ethical standards

Conflicts of interest

Pr Combes is the primary investigator of the EOLIA trial, NCT01470703, a randomized trial of VV-ECMO supported in part by Maquet. Pr Combes has received honoraria for lectures from Maquet.

Accepted: 13 May 2016

Published online: 3 June 2016

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