IL01 Extracorporeal Membrane Oxygenation Support for ARDS and Septic Shock

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Although extracorporeal membrane oxygenation（ECMO）has been in existence since the 1970s as a means of supporting respiratory or cardiac function, early application of this technology was plagued by high complication rates with no proven survival advantage over conventional management. Major recent advances in extracorporeal technology have favorably altered its risk-benefit profile, and an expanding body of evidence and more extensive experience have generated a renewed interest as well as a considerable rise in the use of ECMO for cardiopulmonary disease. The promise of a major shift in the paradigm for the treatment of respiratory and cardiac failure is tempered by a need for evidence to support many current and potential future uses. Likewise, the use of ECMO may introduce numerous ethical dilemmas to our practice.

IL02 Role of endothelial cell (EC) in disseminated intravascular coagulation (DIC) induced by sepsis or trauma

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The vascular endothelium is a major target of bacterial endotoxins and a variety of microorganisms. Damage to EC is a hallmark of Gram-negative sepsis and trauma and studies suggest a role for ECs in the occurrence of DIC. Functional changes of ECs may occur in the total absence of morphological alterations leading to the concept of "endothelial cell perturbation" as a fundamental pathogenic mechanism. ECs express a vast array of properties through which they exert numerous functions including the capacity to dynamically regulate the processes of coagulation and fibrinolysis. While "resting" endothelium essentially express anticoagulant activities, following "perturbation" by a variety of pathogens or conditions, it acquires clot-promoting properties whereby blood coagulation is initiated and propagated on the cell surface.

In this talk, I will attempt to summarize the role of the endothelium in orchestrating the host response during sepsis, and emphasize the potential value of the endothelium as a target for sepsis therapy.