

Application of CytoSorb in Ex Vivo Lung Perfusion

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BACKGROUND

Ex vivo lung perfusion (EVLP) is a transformative technique for assessing and rehabilitating donor lungs prior to transplantation. Despite its benefits, ischemia-reperfusion injury and inflammatory responses remain significant challenges, potentially compromising graft viability. CytoSorb®, a hemadsorption device engineered to remove inflammatory cytokines and mediators from blood or perfusate, offers a promising solution. Its integration into EVLP circuits may enhance lung preservation, attenuate inflammation, and improve post-transplant outcomes.

METHODS

Ex vivo lung perfusion (EVLP) is a transformative technique for assessing and rehabilitating donor lungs prior to transplantation. Despite its benefits, ischemia-reperfusion injury and inflammatory responses remain significant challenges, potentially compromising graft viability. CytoSorb®, a hemadsorption device engineered to remove inflammatory cytokines and mediators from blood or perfusate, offers a promising solution. Its integration into EVLP circuits may enhance lung preservation, attenuate inflammation, and improve post-transplant outcomes.

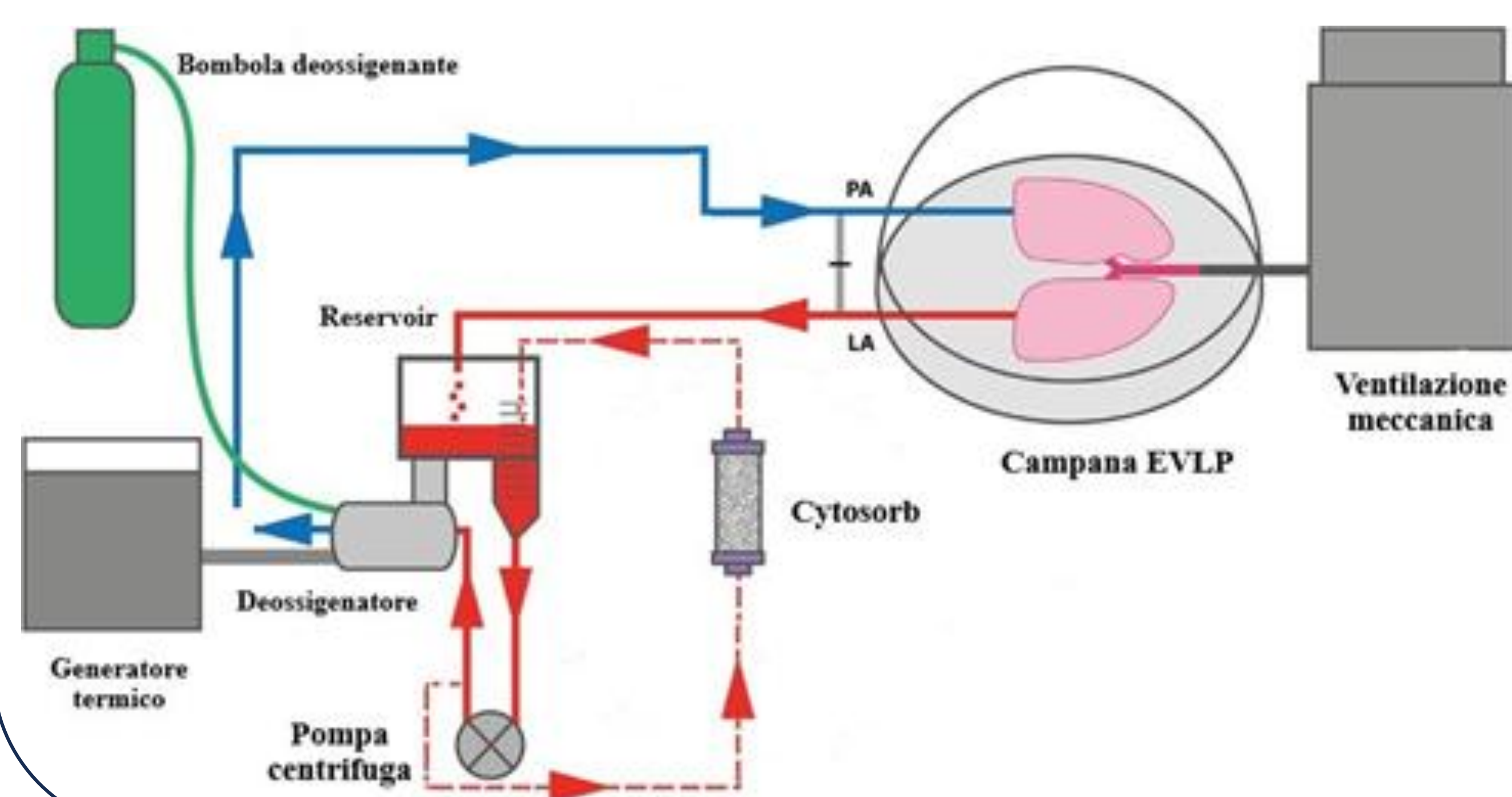
RESULTS

3 EVLP + CYTOSORB performed



- Uneventful procedures
- NO PGD occurrence
- Cytokine analysis ongoing to furtherly characterize CytoSorb effects

EVLP+CytoSorb CIRCUIT SCHEME



CONCLUSION

CytoSorb use during EVLP appears to be a safe and viable approach to improve donor lung quality and transplant success. Its anti-inflammatory benefits may expand the pool of transplantable lungs and mitigate PGD risk