

# A preliminary experience with Normothermic Regional Perfusion and Apheresis in Controlled Donation after Circulatory Death

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## Background

A strategy to reduce the complications related to the ischemic time in cDCD transplantation is the use of Normothermic Regional Perfusion (NRP) with extracorporeal membranous oxygenation (ECMO).<sup>1 2 3</sup> We compare the use of standard NRP with an effective adsorption system inflammatory mediators (CytoSorb), that involves a reduction in cellular oxidative damage, assessed as a reduction in levels of lactates and other indicators of ischemia/reperfusion injury.

## Methods

We report a case series of 9 DCD-Maastricht III A category donors, treated in ECMO with NRP, to maintain circulation before organ retrieval, in association with CytoSorb in 5 patients. During perfusion, from starting NRP (T0), blood samples are collected other 3 times, every 60 minutes (T1, T2, T3).

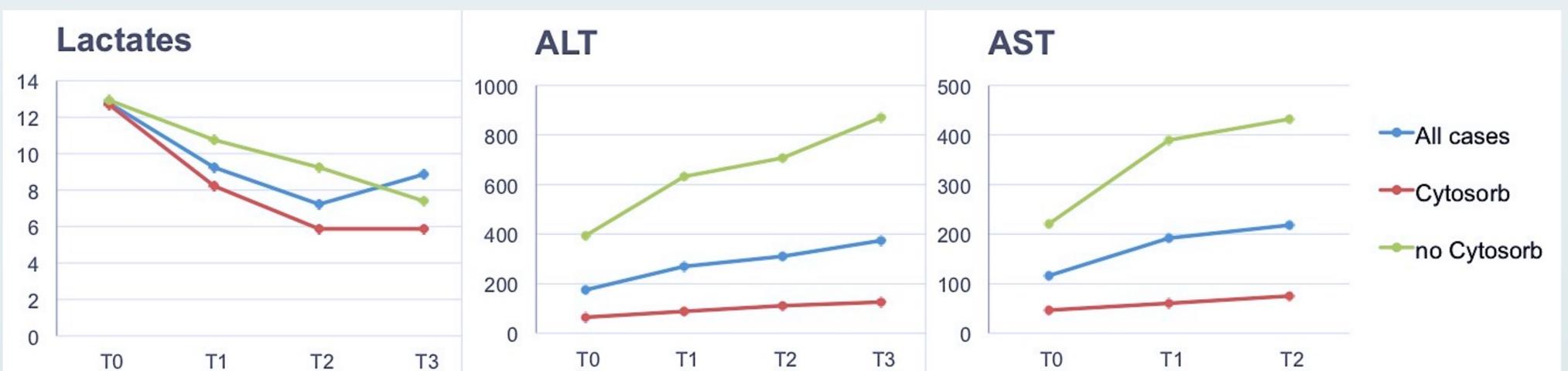
## Results

During treatment with CytoSorb, lactate levels progressively decrease, AST and ALT increase less than without Cytosorb, as sign of improvement in organs perfusion. Organs were judge transplantable and assigned to recipients, according to waiting lists, without complications during organ removal.

## Conclusion

NRP with CytoSorb might help to successfully limit irreversible organ damages and improve transplantation outcome.<sup>3</sup>

Development and implementation of uniform guidelines will be necessary to guarantee the clinical use of these donor pools.



## References

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