



Inflammatory Mediators Adsorption and Liver Machine Perfusion Strategies



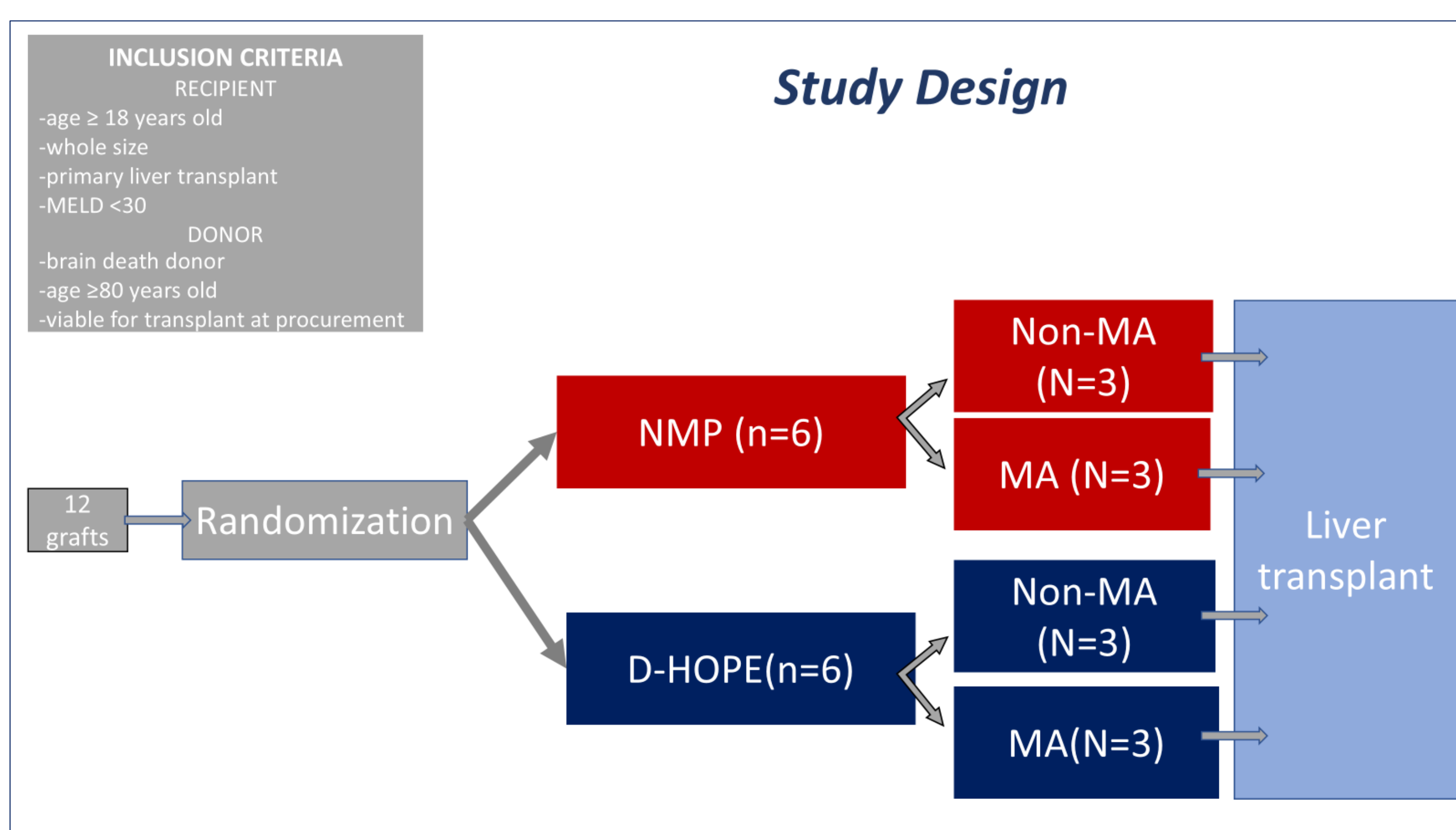
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Background

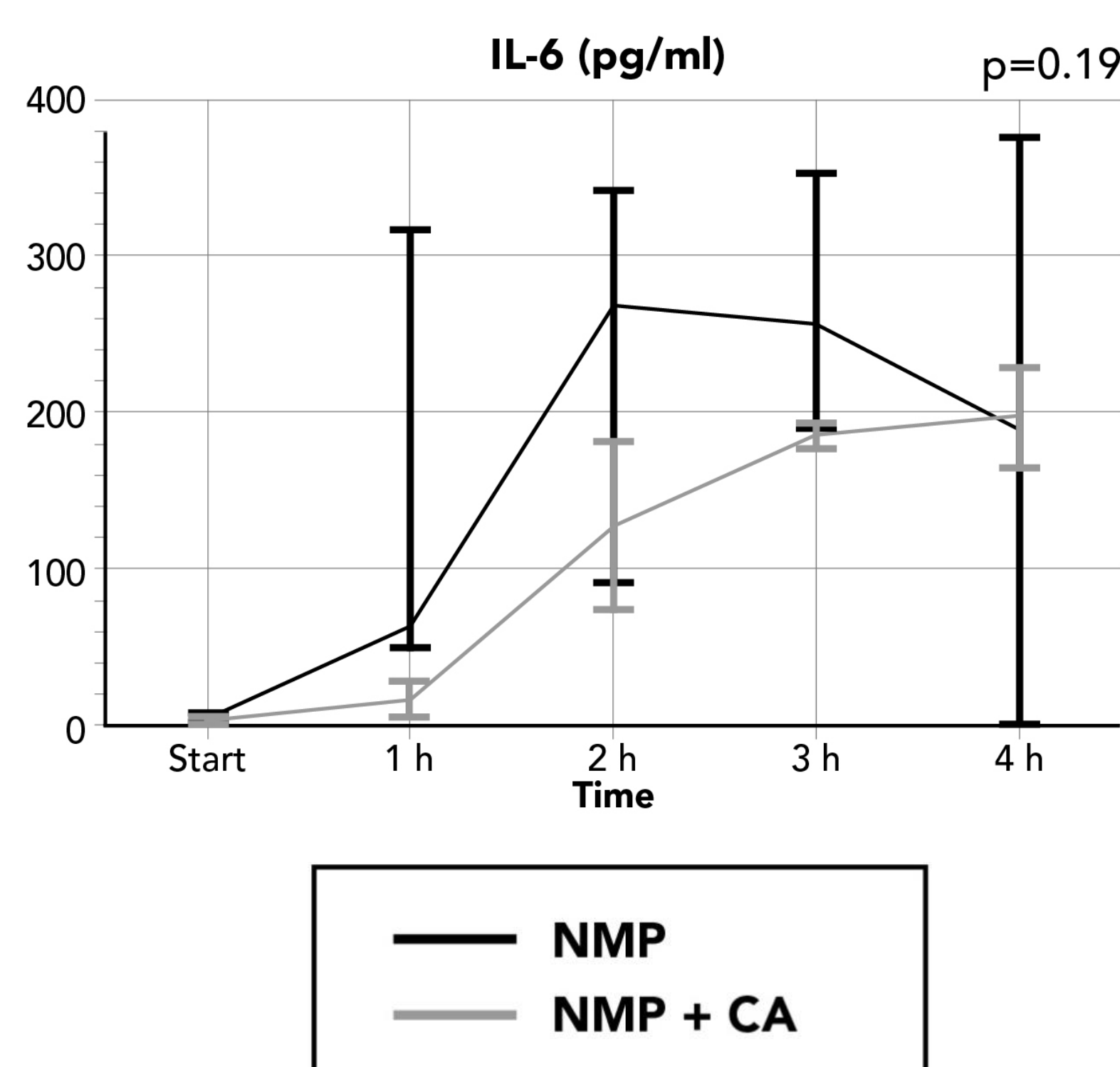
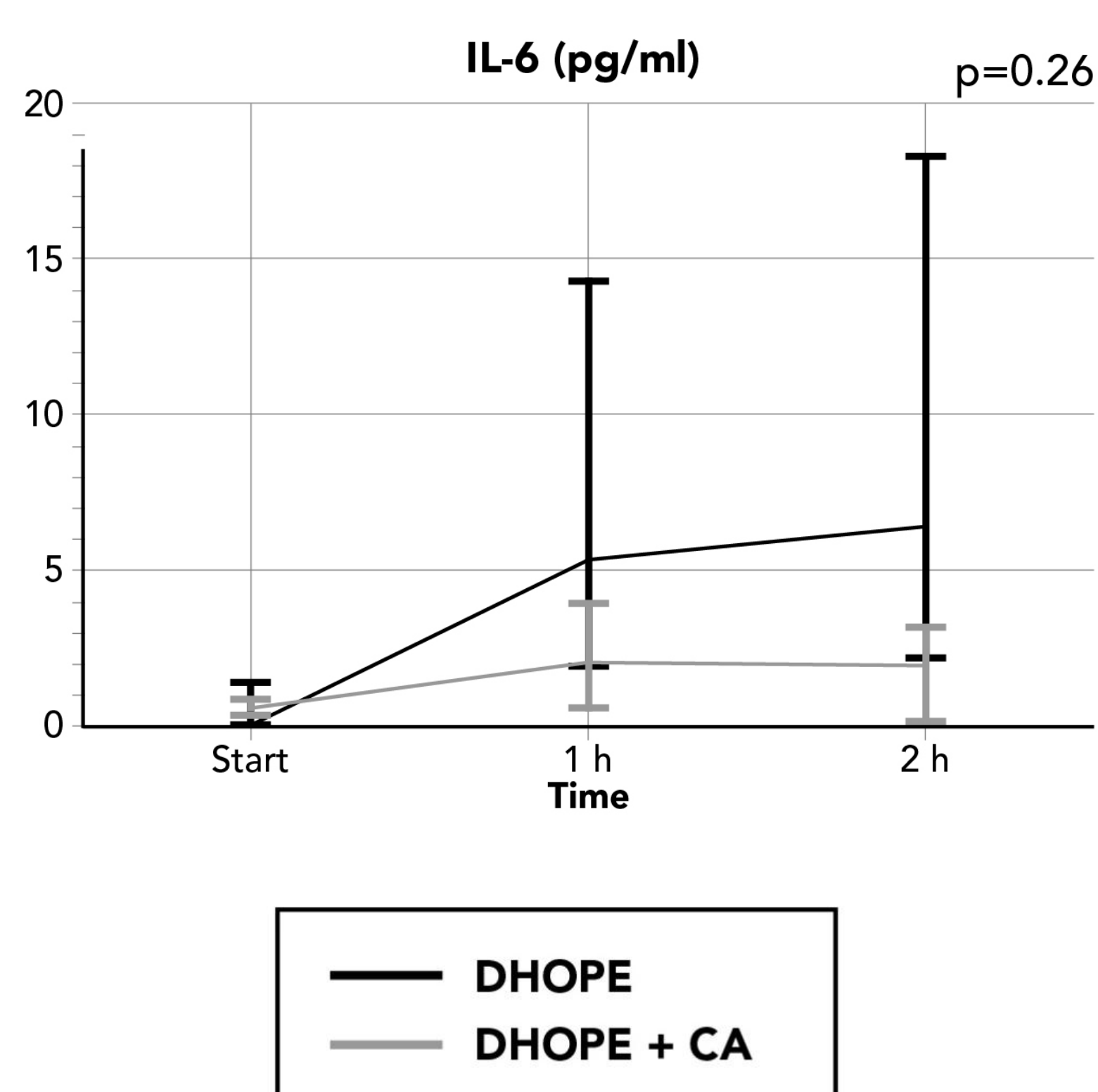
MP protects the organs limiting the deleterious effects of IRI helping good transplant outcomes. Besides acting as a preservation technique, MP is used also for the implementation of therapeutical treatments targeting some IRI mechanisms. One of these therapeutic approaches is inflammatory mediators adsorption by apheresis application in MP. We assessed the safety and the efficacy of PerSorb® combined with both D-HOPE and NMP with PerLife® system (Aferetica, Bologna, Italy).

Methods and Results



- Standard D-HOPE and NMP protocols
- Inflammatory Biomarkers quantification: **IL-1, IL-6, IL-10, TNF-α**
- Post-LT clinical outcomes: **ICU stay, hospital stay, biliary complications and CCI**

IL – 6 Levels in DHOPE and NMP



IL in MP

- In NMP, 10-40 times > healthy subject serum
- $IL_{NMP} > IL_{DHOPE}$
- More remarkable removal in NMP = Concentration-dependent PerSorb Mechanism of Action

Conclusions

Perfusate purification through adsorption of inflammatory mediators in MP is safe, feasible and effective. The prevention/limitation of inflammatory cascade may improve graft performance during MP and post-transplant outcome. Further studies are needed to explore short- and long-term clinical impacts of this therapeutic strategy.