

# Incorporating Membrane: Plasma Exchange in Critical Care

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At the outset, I would like to thank the editorial board for inviting me to write the editorial for this esteemed *Journal of Acute Care*. In 1952, therapeutic plasma exchange (TPE) was initially started, and it was Micheal Rubinstein who first employed in the treatment of thrombotic thrombocytopenic purpura in 1959.<sup>1</sup> Dr Victor Grifils-Lucas, in 1965, patented the device, which performed an automatic and continuous separation of blood components.<sup>2</sup> All major guidelines strongly recommend TPE for autoimmune disorders, such as antineutrophil cytoplasmic antibody-associated vasculitis.<sup>3,4</sup> Membrane separation is not very helpful for the separation of individual blood components. However, the centrifugal technique has a very high extraction ratio (approximately 100%).<sup>5-7</sup>

In the current issue of the *Journal of Acute Care*, authors have highlighted the need to implement a critical technology in the care of sick patients. The expertise available at the current hospital was restricted only to continuous renal replacement therapy (CRRT). However, in dire circumstances, the authors have implemented the plasma exchange using the CRRT machines. Trained nurses and technicians are the backbones of the therapy. In this paper, the training and critical role played by them has been highlighted. The knowledge and expertise need to be passed on for the technology to percolate and utilization of the benefit of the patients. The mortality in this study compared to other studies is almost similar. The aggressive disease itself has high mortality. The authors have clearly explained the methodology of membrane plasma exchange. Although there is no novel technology demonstrated here, adaptation to accommodate the technology needs to be applauded. Last but not least, the strain on limited resources was eased, especially during the coronavirus disease of 2019 pandemic. Hopefully, low-volume centers across the globe can similarly implement the same and continue to serve sick patients.

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