

efficacy on more advanced mechanical circulatory support devices, such as ventricular assist devices, are needed (Jaffer et al. 2015). Furthermore, systematic studies of the pathological sequelae of HPE, novel diagnostic tests and further histopathological investigations of autopsy tissue are required to increase understanding of the aetiology of this vascular embolization process and subsequently facilitate the development of effective preventative measures (Metha et al. 2015; Sanon et al. 2014).

In conclusion, the application of hydrogels as medical device coatings offers a promising strategy to address these problems, and may ultimately lead to the development of infection-resistant devices which can be inserted with ease, integrate successfully within the body and, finally, can be removed after the required duration of implantation with no associated tissue damage—the so-called ‘ideal’ device.

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