OPEN ACCESS Freely available online

Journal of Medical Diagnostic Methods

ISSN: 2168-9784

Opinion Article

Intensive Therapy unit importance of Intermittent Arterial Haemodialysis

Xiao Yeen*

Department of Psychiatry, Cairo University, Giza Governorate, Egypt

ABOUT THE STUDY

A requirement for dialysis is one of the factors that define renal organ failure, according to the definitions of organ failure. If one organ system fails for more than three days, that patient group has a death rate of more than 30%; if a second system fails, the mortality rate rises to 60%; and if three organ systems fail for more than three days, the mortality rate rises to more than 90%. As a result, patients in the Intensive Treatment Unit (ITU) have a dismal prognosis when acute renal failure develops in them.

The management of vascular access for Renal Replacement Therapy (RRT) in Acute Renal Failure (ARF) patients faces a double problem: First, creating an angio-access adequate for RRT in the acute setting; second, preserving the patient's vascular network so that further use of the vessel is not ruled out in the event of progression to chronic renal failure. In the intensive care context, central venous catheters are the preferred VA for RRT. For short-term usage, semi-rigid double-lumen polyurethane catheters may be explored (up to 2-3 weeks). For extended RRT, soft silicone double-lumen or twin-catheters, ideally with subcutaneous tunneling, are extremely preferred (over 3 weeks). In the case of related risk factors, the femoral route is the preferred choice (respiratory failure, pulmonary oedema, bleeding). To simplify movement and limit the possibility of transmission, the internal jugular route should be explored for mid-term usage. The subclavian approach should be avoided due to the possibility of outflow vein stenosis and/or thrombosis. Catheter insertion must be conducted by a skilled physician under the supervision of an ultrasound technician using either skin mapping or continuous vein monitoring. To prevent catheter-related morbidity, catheter handling and care should follow best practice recommendations. The preservation of the patient's upper limb vascular network consists of protecting the patient's native arteries (artery and vein) and retaining the functionality of the permanent VA in chronic renal failure patients. This 'lifeline' for chronic renal failure patients can be managed by avoiding inflammation, infection, and thrombosis of the patient's superficial veins in the arm and forearm.

Despite advancements in therapy such as early nutritional support and dialysis, mortality from multiple organ failure (inclusive of renal failure) has not altered significantly over the previous 40 years. The therapy of acute renal failure (in ITU patients) has required the transfer of critically ill patients from one hospital to another, and dialysis facilities in the UK are provided on a sub-regional basis.

Dialysis techniques continue to advance; smaller, more efficient dialysers have improved clearance and ultrafiltration control. The use of bicarbonate dialysate has reduced cardiovascular instability, and better monitoring has reduced the occurrence of complications such as hemolysis and air embolus. Despite these advancements, some patients with multiple organ system failure are unable to tolerate the stress of haemodialysis without resorting to large amounts of dialysis.

CONCLUSION

Since there is no need for a hemodialyzer, blood is forced down the dialysis filter by the A-V pressure differential while dialysate is fed past the opposite side of the membrane using cannulas inserted into the femoral arteries. Therefore, it has been suggested that in the absence of renal trained nursing staff, certain treatments may be carried out in a non-specialist ITU. If this turns out to be the case, secondary transfer and cardio-vascular instability issues may be avoided, and demand on specialized renal units may be reduced.

Correspondence to: Xiao Yeen, Department of Psychiatry, Cairo University, Giza Governorate, Egypt, E-mail: yeexia231@link.net

Received: 04-Jul-2022, Manuscript No. JMDM-22-22334; **Editor assigned:** 06-Jul-2022, PreQC No. JMDM-22-22334 (PQ); **Reviewed:** 26-Jul-2022, QC No. JMDM-22-22334; **Revised:** 04-Aug-2022,Manuscript No. JMDM-22-22334 (R); **Published:** 15-Aug-2022, DOI: 10.35248/2168-9784.22.11.385.

Citation: Yeen X (2022) Intensive Therapy unit Importance of Intermittent Arterial Haemodialysis . J Med Diagn Meth.11:385 .