Effect of different modalities of sustained low-efficiency dialysis on Intradialytic hypotension in intensive care unit patients with acute kidney injury

Thesis

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List of Abbreviations

Abb.	Full term
AAP	:Alanine Amino Peptidase
ABP	:Adinosine Deaminase Binding Protein
ADQI	:Acute dialysis quality initiative
AHF	:Acute heart failure
AKI	:Acute kidney injury
AKIN	:Acute kidney injury network
ALP	:Alkaline Phosphatase
Alpha-1M	:Alpha one Microglobulin
Alpha-GST	:Alpha Glutathione Transferase
ATN	:Acute Tubular Necrosis
Beta-2M	:Beta two Microglobulin
BP	:Blood pressure
BUN	:Blood urea nitrogen
BW	:Body weight
CBC	:Complete blood count
C GMP	: Cyclic Guanosine mono phosphate
CKD	:Chronic kidney disease
Cr	:Creatinine
CrCl	:Creatinine clearance
CRRT	:Continuos Renal Replacement Therapy
CVP	:Central venous pressure
CVS	:Cerebrovascular stroke
DDS	:Dialysis Disequilibrium Syndrome
DM	:Diabetes mellitus
DOPPS	:The Dialysis Outcomes and Practice Patterns Study
ESRD	:End stage renal disease
E GFR	:Estimated Glomerular Filtration Rate
EF	:Ejection fraction
FENA	:Fractional Ecxecretion of Sodium
FEUREA	: Fractional Ecxecretion of Urea
Gamma GT	:Gamma Glutamyl Transpeptidase
g/dL	:Gram per deciliter

Abb.	Full term
g/L	:Gram per liter
Hb	:Hemoglobin concentration
HF	:Heart failure
HIT	:Heparin Induced Thrombocytopenia
HITT	:Heparin Induced Thrombocytopenia and Thrombosis
HRTE-1	:Proximal Renal Tubular Epithelial Antigen
HTN	:Hypertension
HUS	:Hemolytic Uremic Syndrome
ICU	:Intensive care unit
IDH	:Intradialytic Hypotension
IHD	:Intermittent Haemodialysis
IL-18	:Interleukin-18
IV	:Intravenous
IVIG	:Intravenous Immunoglobulin
JVP	:Jugular venous pressure
K	:Potassium
KDIGO	:Kidney disease improving global outcome
Kg	:Kilogram
KIM-1	Kidney Injury Moleccule-1
L	:Liter
LDH	:Lactate Dehydrogenase
MAP	:Mean arterial pressure
MDRD	:The Modification of Diet in Renal Disease
Mg	:Milligram
mg/kg	:Milligram per kilogram
Ml	:Milliliter
mm Hg	:Millimeter mercury
mmol/L	:Millimol per liter
Na	:Sodium
ng/ml	:Nanogram per milliliter
NAG	:N-acetyl-beta-D-glucosaminidase
NGAL	:Neutrophil gelatinase associated lipocalin
NHE	:Sodium Hydrogen Excange

Abb.	Full term
NKF	:National kidney foundation
NO	:Nitric Oxide
PICARD	:Program to Improvance in Acute Kidney Injury
Pi-GST	:Pi Glutathione Transferase
RBF	:Renal blood flow
RBP	:Retinal Binding Protein
RRT	:Renal Replacement Therapy
RIFLE	:Risk, Injury, Failure, Loss of Kidney Function, and End-stage Kidney Disease
SCA	:Sudden cardiac arrest
S.cr	:Serum creatinine
SLED	:Sustained Low Effeciency Dialysis
SOAP	: The Sequential Organ Failure Assessment
TTP	:Thtombotic Thrombocytopenic Purpura
Ucr	:Urine Creatinine
Pcr	:Plasma Creatinine
U pre	:Urea Predialysis
Upost	:Urea Postdialysis
VF	:Ventricular Fibrillation
VT	:Ventricular Tachycardia

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Introduction

Introduction

Acute kidney injury definition based on Kidney Disease Improving Global Outcomes (KDIGO) consensus guidelines which build on RIFLE criteria(Risk ,Injury , Failure ,loss and End-stage kidney disease) and the AKIN criteria (Acute Kidney Injury Network) is the increase in serum creatinine level of 0.3 mg per deciliter (26.5 µmol per liter) or more within 48 hours; a serum creatinine level that has increased by at least 1.5 times the baseline value within the previous 7 days; or a urine volume of less than 0.5 ml per kilogram of body weight per hour for 6 hours **(Khwaja., 2012).**

Acute kidney injury (AKI) has multiple possible etiologies. Among hospitalized patients, AKI is most commonly due to acute tubular necrosis (ATN) from ischemia, nephrotoxin exposure or sepsis, other frequent causes of AKI among either ambulatory or hospitalized patients include volume depletion, urinary obstruction, rapidly progressive glomerulonephritis, and acute interstitial nephritis **(Nash et al., 2002).**

Acute tubular necrosis is the most common cause of hospital-acquired acute kidney injury and usually results from ischemic or nephrotoxic injury to the tubules. In the ICU, acute tubular necrosis is usually multifactorial and may develop from a combination of sepsis, impaired renal perfusion, and nephrotoxic medications **(Schrier et al., 2004).**

There is no specific medical treatment for AKI so management is largely supportive. Renal-replacement therapy (RRT) is the mainstay of supportive treatment of patients with severe acute kidney injury; RRT use is required in