Comparative study between traditional increasing heparin dose versus the use of fresh frozen plasma in management of heparin resistance

Thesis

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Ahmed Shehata

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ABW	Adjusted Body Weight
ACT	Activated Clotting Time
aPTT	activated partial thromboplastin times
AT	antithrombin
DTI	Direct Thrombin Inhibitor
DVT	Deep venous thrombosis
H-AT	heparin-antithrombin
HIT	Heparin Induced Thrombocytopenia
HIV	Human Immunodeficiency Virus
IBW	Ideal Body Weight
ICU	Intensive Care Unit
ISMP	Institute for Safe Medication Practices
IU	International unit
IV	Intra venous
FFP	Fresh Frozen Plasma

fVa	Activated factor V
fXa	activated factor X
h	hour
Kg	Kilogram
mL	Milli – liter
PF4	Platelets factor four
SD	Standard Deviation
TBW	Total Body Weight
TFPI	tissue factor pathway inhibitor
U	unit
UFH	Unfractionated heparin

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Introduction

. Introduction

Heparin is a sulfated polysaccharide with a molecular weight range of 3000 to 30 000 Da (mean, 15 000 Da). It produces its major anticoagulant effect by inactivating thrombin and activated factor X (factor Xa) through an antithrombin (AT)-dependent mechanism **(Bentolila et al., 2008).**

Traditionally, unfractionated heparin has been indicated for the treatment or prevention of spontaneous or iatrogenic (medical procedure-induced) venous or arterial thromboembolism (clotting). Heparin therapy has been demonstrated to be effective in reducing morbidity and mortality associated with established thromboembolism (eg, deep venous thrombosis, pulmonary embolism) and in reducing the risk of thrombus formation (eg, myocardial infarction, unstable angina, coronary angioplasty) **(Segal, 2007).**

Heparin is given parentrally because it is not absorbed from the gut, due to its high negative charge and large size. Heparin can be injected intravenously or subcutaneously. Intramuscular injections are avoided for