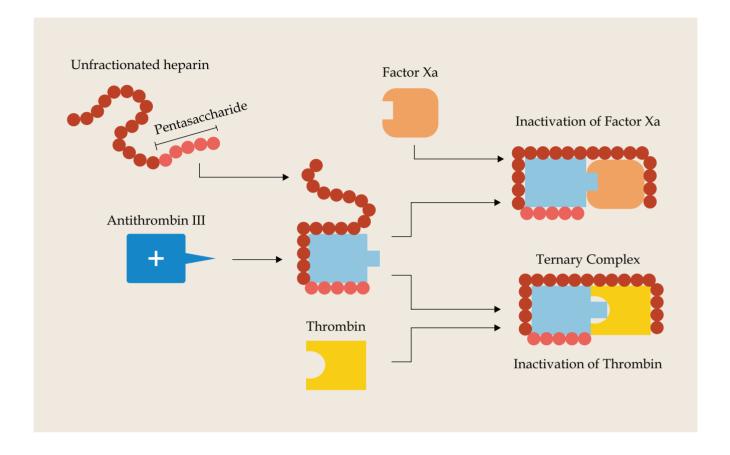


HETHIN-F

Preservative Free Heparin Sodium for Injection 1000 IU/ml (5 ml/Amp)

UNFRACTIONATED HEPARIN: ANTICOAGULANT



Heparin produces its major anticoagulant effect by inactivating thrombin and activated factor X (factor Xa) through an antithrombin (AT)-dependent mechanism.

Heparin binds to AT through a high-affinity pentasaccharide, which is present on about a third of heparin molecules.

By inactivating thrombin, heparin not only prevents fibrin formation but also inhibits thrombin-induced activation of platelets and of factors V and VIII.

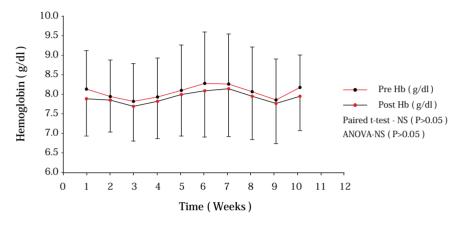
Unfractionated heparin (UFH) is the anticoagulant of choice in maintenance hemodialysis units which is a complex and heterogeneous glycosaminoglycan, widely used in medicine to treat or to prevent thrombosis.

Application of heparin during hemodialysis requires an initial loading dose followed by a maintenance dose; as an initial loading dose, the European best-practice guidelines for HD recommend administering 50 IU/kg UFH into the arterial access needle.

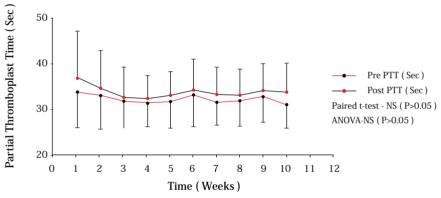
EFFECT OF EXTRACORPOREAL UNFRACTIONATED HEPARIN ON HEMATOLOGICAL AND ELECTROLYTE MARKERS IN HEMODIALYZED PATIENTS

Method -

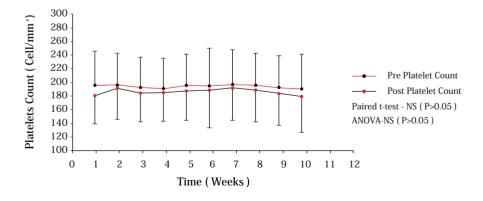
Fifty patients with end stage renal failure (22 males, 28 females), maintained on long-term hemodialysis were enrolled in the present study.



No significant reduction has been found in Hb level after dialysis compared to pre-dialysis level.



Non - Significant change in PTT values in post dialysis & theses values are not affected by the extracorporeal UFH.



Platelet counts are not significantly affected after hemodialysis sessions compared to pre - dialysis state.

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Conclusion -

Extracorporeal use of UFH didn't affect the hematological & electrolyte parameters post-dialysis in chronic renal failure patients maintained on hemodialysis.

References: 1) J. Phys. Pharm. Adv., 2014, 4(9): 431-439 | 2) Semin Dial. 2010; 23(5): 510-515



HETHIN-E

Preservative Free Heparin Sodium for Injection 1000 IU/ml (5 ml/Amp)

Description -

HETHIN[™] F is unfractionated heparin (UFH) & anticoagulant of choice for most maintenance hemodialysis patients. Its proven history of safe, flexible, and low cost use are its most attractive features. HETHIN[™] F 1000 IU/ml solution is for injection. Heparin is a heterogenous group of straight-chain anionic mucopolysaccharides, called glycosaminoglycans, having anticoagulant properties.

Indication -

HETHIN [™]F is an anticoagulant indicated as an anticoagulant use in transfusion, extracorporeal circulation, and dialysis procedures.

Mechanism of Action -

HETHIN $^{\text{-}}$ F inhibits reactions that lead to the clotting of blood and the formation of fibrin clots both in vitro and in vivo. Heparin acts at multiple sites in the normal coagulation system. Small amounts of heparin in combination with antithrombin III (heparin cofactor) can inhibit thrombosis by inactivating activated Factor X and inhibiting the conversion of prothrombin to thrombin. Once active thrombosis has developed, larger amounts of heparin can inhibit further coagulation by inactivating thrombin and preventing the conversion of fibrinogen to fibrin. Heparin also prevents the formation of a stable fibrin clot by inhibiting the activation of the fibrin stabilizing factor.

Dosage and Administration –

Adult Dose -

METHOD OF ADMINISTRATION	FREQUENCY	RECOMMENDED DOSE *	
Intermittent Intravenous Initial Dose Injection		10,000 Units, in 50-100 mL of 5% Dextrose Injection or 0.9% Sodium Chloride Injection	
J	Every 4 to 6 hours	5000-10,000 Units, in 50-100 mL of 5% Dextrose Injection or 0.9% Sodium Chloride Injection	
Continuous Intravenous Infusion	Initial Dose	5000 Units by I.V. Injection	
	Continuous	20,000-40,000 Units/24 hours in 5% Dextrose Injection or 0.9% Sodium Chloride Injection	

^{*} Based on 150 lb. (68 kg) patient.

Presentation

HETHIN[™] F 1000IU/ml is available as a single dose of 5ml ampoule

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