THROMBOLYTIC THERAPY OVERVIEW ON CLINICAL TRIALS IN ACUTE MYOCARDIAL INFARCTION

Essay .
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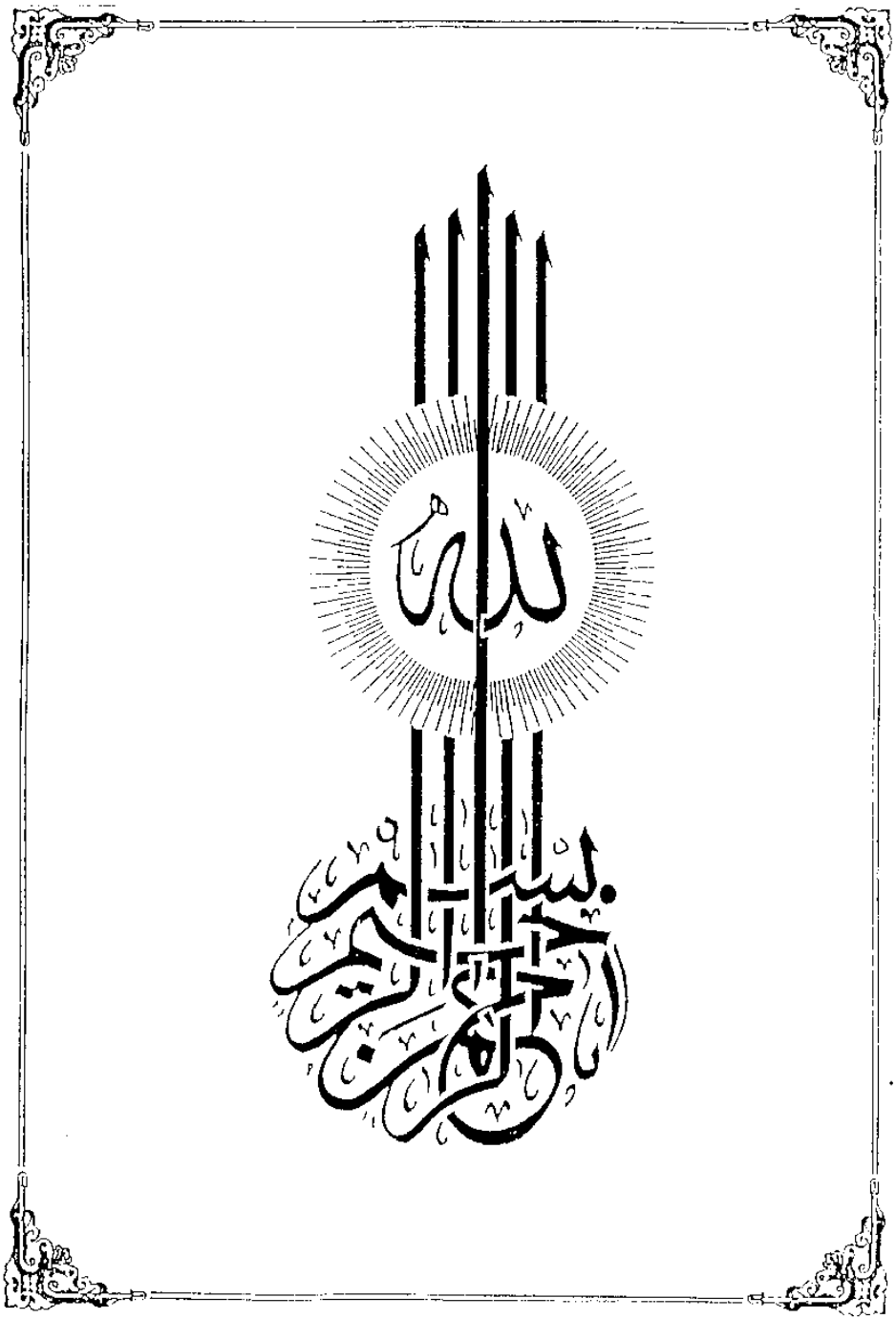

اقرأ باسم ربك الذى خلق ۞ خلق
الانسان من علق ۞ اقرأ و ربك
الأكرم ۞ الذى علم بالقلم ۞ علم
الانسان ما لم يعلم ۞

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Table of Contents

LIST OF ABBREVATION

AMI	Acute Myocardial Infarction.
APSAC	Anisoylated Plasminogen StreptokinaseActivator Complex.
APTT	Activated Partial Thromboplastin Time.
AST	Aspartate Amino Transferase.
CAD	Coronary Artery Diseases.
CK	Creatine Kinase.
CRP	C- Reactive Protein.
DIC	Disseminated Intravascular Coagulopathy.
ECG	Echocardiograpgy.
ELT	Euglobulin Clot Lysis Time.
FDPs	Fibrin Degradation Products.
FPA	Fibrinopeptide A.
FPB	Fibrinopeptide B.
HDL-C	High Density Lipoprotein Cholesterol.
HRG	Histidene- Rich Glycoprotein.
LDH	Lactic Dehydrogenase
LDL-C	Low Density Lipoprotein Cholesterol.
PA	Plasminogen Activator.
PAI	Plasminogen Activator Inhibitor.
Pro-PA	Proactivator Plasminogen Activator.
PT	Prothrombin Time.
rscu-PA	Recombinant Single Chain Urinary Type Plasminogen Activator.
rt-PA	Recombinant Tissue Type Plasminogen Activator.
scu-PA	Single Chain Urokinase Plasminogen Activator.
SK	streptokinase.
tcu-PA	Tow Chain Urokinase Plasminogen Activator.
t-PA	Tissue-Type Plasminogen Activator.

T.T.	Thrombin Time.
UK.	Urokinase.
u-PA	Urokinase Plasminogen Activator.

INTRODUCTION AND AIM OF WORK

INTRODUCTION

Occlusive thrombus within a coronary artery plays a central role in acute myocardial infarction (AMI) consequently restoration of the arterial blood supply must occur early.

The pharmacological dissolution of blood clots "thrombolysis" depends on activation of the fibrinolytic system which comprises a pro-enzyme "plaminogen" which is converted by tissue plasminogen activators to a proteolytic enzyme "plasmin" which lysis fresh fibrin clots into soluble fibrin degradation products (***Littler, 1994***).

Several studies have demonstrated that intravenous streptokinase given early to patients with AMI reduced mortality by approximately 20% (***Kennedy et al., 1983***). Furthermore Bovill et al., (1992) showed an additional benefit if aspirin was added in conjunction with streptokinase.

Subsequent studies were designed to determine if there is any difference between the three most commonly used thrombolytic agents namely streptokinase (SK), tissue plasminogen activator (TPA) and acylated plasminogen activators complex (APSAC). All three agents produced more or less similar reduction in mortality and there was no difference in the 6-month survival rate. Whilst thrombolysis has reduced in hospital mortality, it has not been without complication (***Buchalter et al.,1992 ; Collen et al., 1993***) .

Haemorrhage is the most serious complication and more common with TPA. Because Sk and APSAC are foreign proteins they can induce an acute allergic reaction. The development of antibodies to SK precludes its in subsequent

myocardial infractions for up to 18 months (***Elliott et al., 1993***).

Therefore, monitoring of thrombolytic therapy is essential in these situation.

Aim of the work

The aim of this essay is to present the most recent publications relating to thrombolylic therapy in acute myocardial infarction with particular reference to their clinical role and methods of monitoring their therapeutic action.