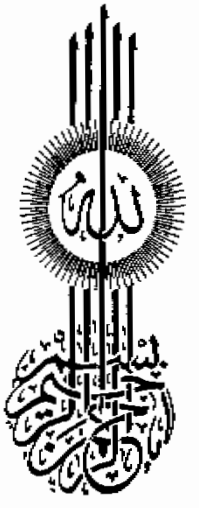

"قالوا سبحانك لا علم لنا الا ما
علمتنا انك أنت العليم الحكيم."

صدق الله العظيم

سورة البقرة- آية ٣٢

Oral Versus Intravenous Beta Blockade In Unstable Angina

Thesis
Submitted in partial fulfillment
for the Master Degree in Cardiology

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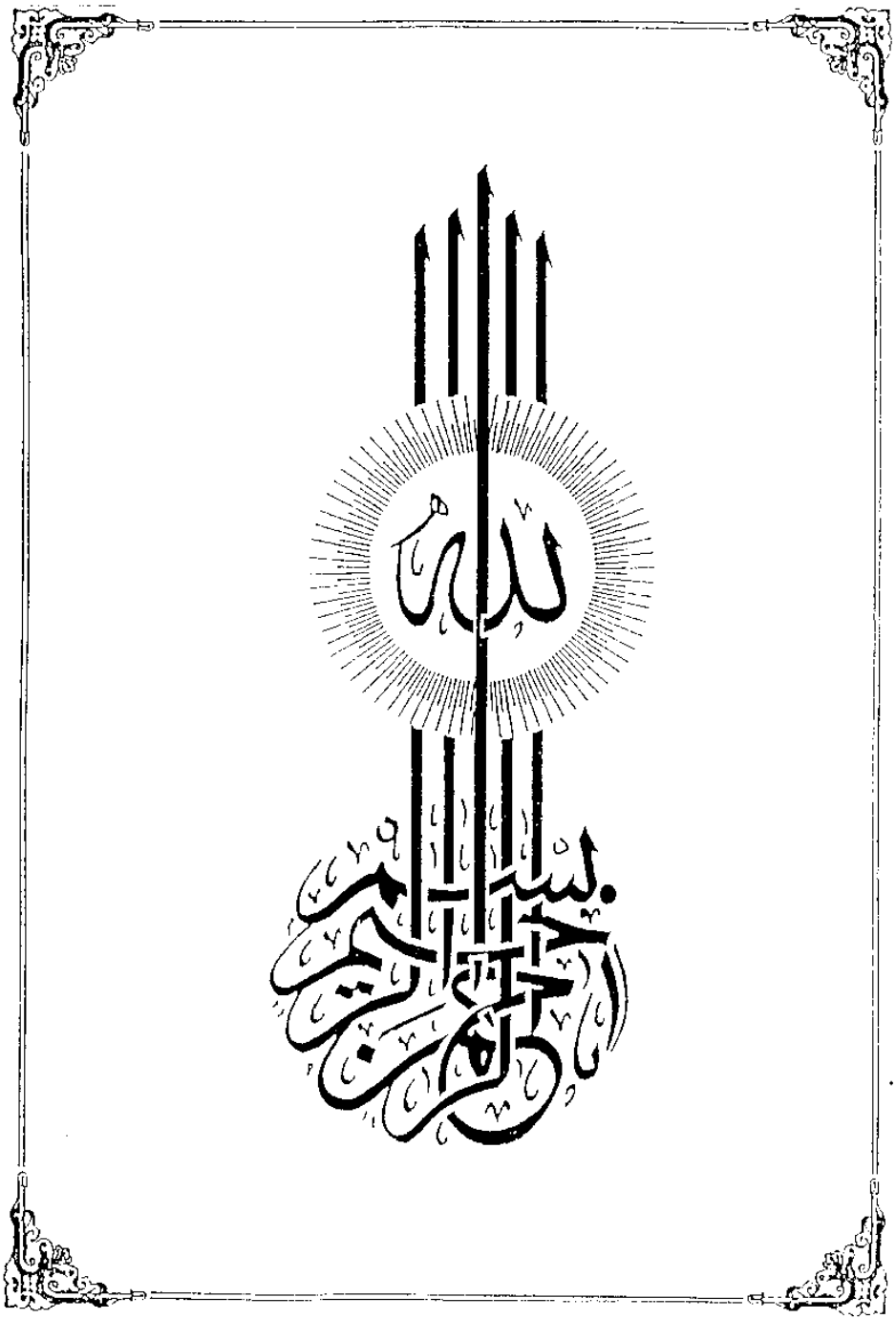

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First, thanks to **ALLAH** *for help and prosperity till the end of this work.*

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To All Patients With Ischemic Heart Disease

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INTRODUCTION
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INTRODUCTION & AIM OF THE WORK

Coronary artery disease is increasingly becoming a major challenge and threat to our civilization and development. Coronary artery disease is a disease of significant morbidity and mortality. It imposes a risk to the patients all through its course and by its spectrum of presentations including its different complications. In addition there is a risk which continues during some diagnostic and therapeutic procedures and during surgical interventions and even from some medicines used for treatment. Therefore it is appropriate to study different aspects of this syndrome and imperative to fight it with more knowledge and technology.

Recently, therapeutic measures are directed towards the prevention of myocardial infarction and possibly death hence the increasing use of beta-blockers. Several randomized trials have placed the role of beta-blockers in the treatment of unstable angina into better perspective. The aim of this study was to compare the benefits of oral versus intravenous Atenolol therapy in patients presenting with unstable angina regarding the improvement in chest pain (its severity, frequency and duration), incidence of myocardial infarction, cardiac arrhythmias, and death.

REVIEW OF LITERATURE

Unstable Angina

UNSTABLE ANGINA

Introduction:

Unstable angina is a term which encompasses several clinical syndromes (crescendo angina, angina de novo, resting angina, post-infarction angina and intermediate syndrome). The results of coronary angioscopy have allowed differentiation of accelerated effort angina which seems related to ulceration of an atheromatous plaque from resting angina, more commonly associated with intraluminal thrombosis.[1],[2]

Ischemic heart diseases may really represent a spectrum of severities with acute transmural infarction at one end of the spectrum, ranging successively through acute subendocardial infarction, unstable angina, chronic stable angina, with occasional silent ischemia at the other end of the spectrum.[1]

Definition:

Definition of unstable angina depends on the presence of one or more of the following three historical features, accompanied by electrocardiographic changes: (1) crescendo angina (more severe, prolonged or frequent) superimposed on a pre-existing pattern of

relatively stable, exertion-related angina pectoris; (2) angina pectoris at rest as well as with minimal exertion; or (3) angina pectoris of new onset (usually within one month) which is brought on by minimal exertion.[1-5]

Incidence and prevalence:

Unstable angina is probably responsible for about a quarter of the admissions to hospital of patients with acute anterior chest pain. It may have been present for several days in half or more of patients suffering acute myocardial infarction, including those dying within the first few hours. As one might expect, unstable angina associated with advanced coronary artery disease is more common in middle-aged men. However, estimates of the frequency of the condition are based on numbers admitted to hospital or referred to a specialized center. There is little information about the incidence and prevalence of unstable angina in the general population.[3]

Classification of unstable angina:

Unstable angina has been classified by **Rutherford and Braunwald, [1992]** according to three important issues:

(1) Severity of the clinical manifestations:

Class I New-onset, severe, or accelerated angina. Angina of less than

2 months duration, severe, or more frequent, and precipitated by less exertion. No rest pain in the last two months.

Class II Angina at rest. Subacute (during the preceding month but not within the last 48hr).

Class III Angina at rest. Acute (within the preceding 48 hr).

(2) Clinical circumstances in which unstable angina occurs:

Class A Secondary unstable angina (a condition extrinsic to the coronary arteries has intensified myocardial ischemia e.g. anemia, infection, fever, hypotension, tachyarrhythmia, thyrotoxicosis, hypoxemia secondary to respiratory failure).

Class B Primary unstable angina.

Class C Post-infarction unstable angina (within 2 weeks of documented myocardial infarction).

(3) Intensity of treatment:

Patients receiving minimal treatment or no treatment at all are considered **Class 1**. But those receiving standard therapy (conventional doses of nitrates, calcium-channel blockers and beta-blockers) are **Class 2**. However, **Class 3**-patients are those receiving maximal doses of all three categories of oral therapy, including intravenous nitroglycerin.