A Study of Portal Circulation and Liver Function in Congestive Heart Failure

Thesis

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The Master Degree

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Internal Medicine

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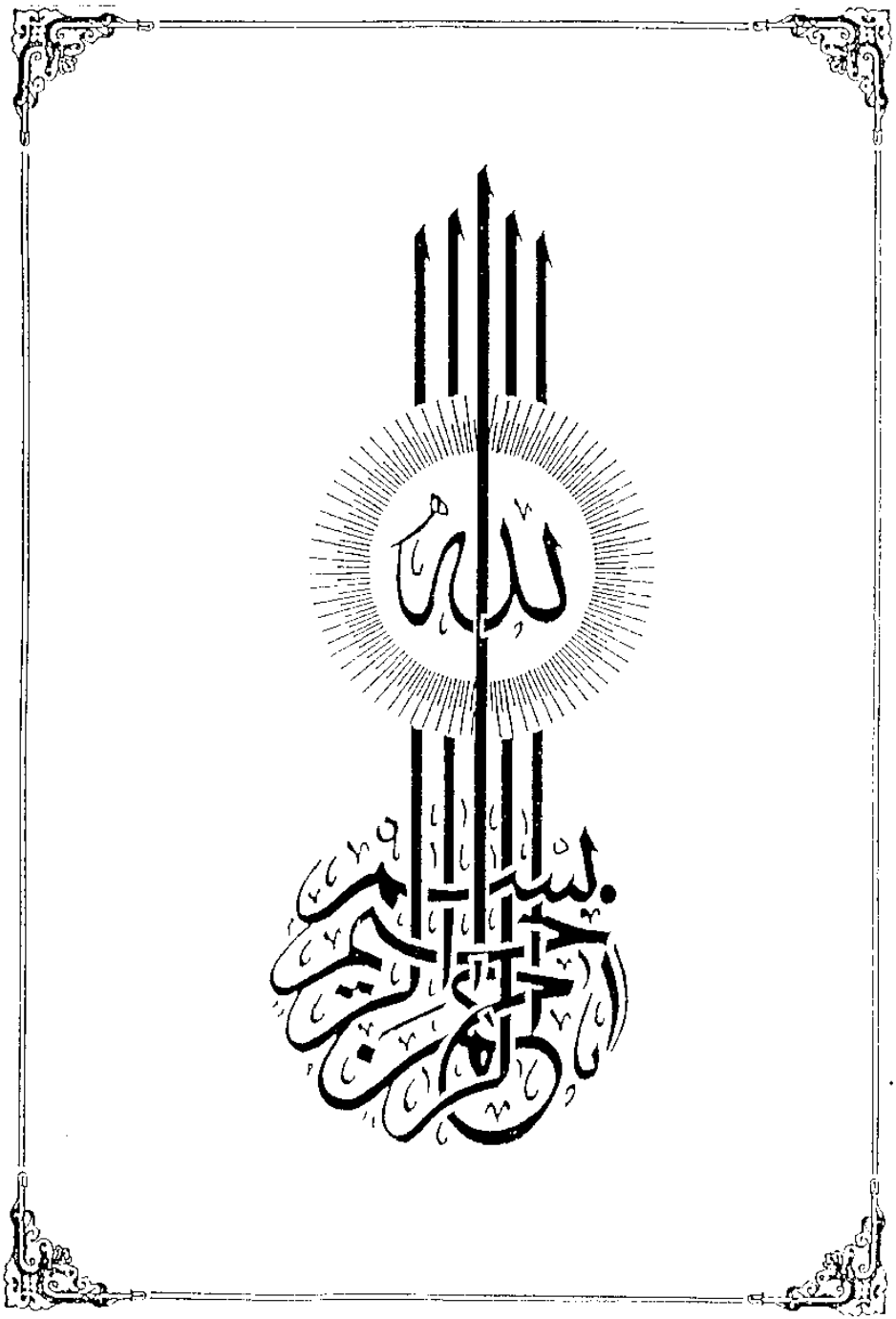

بسم الله الرحمن الرحيم

وَقُل رَّبِّ زِدْنِي عِلْمًا

صدق الله العظيم

" آية ١١٤ سورة طه "

مكية ـ الجزء السادس عشر

I DEDICATE THIS THESIS TO MY MOTHER
MY WIFE AND MY CHILDREN

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INTRODUCTION

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Heart failure not only strikes down a significant fraction of the population without warning but causes prolonged suffering and disability in an even larger number. The cost of the disease in terms of human suffering and of material resources is almost incalculable.

Cardiac dysfunction is known to be reflected upon the liver functions (Kubo et al., 1987). The elevation of the right atrial and pulmonary wedge pressure were significantly correlated with liver function. Congestive heart failure (CHF) may be an important pathogenetic mechanism lying in the basis of chronicity of concomitant liver disease.

In health, the integrity of the portal system haemodynamics is an important factor preserving the functions of the liver. In CHF, the balance of portal blood flow may be breached with secondary effects on liver functions. The time velocity wave form shape of portal blood flow is influenced by the mechanical events in the right side of the heart in CHF (Hosoki et al., 1990).

Explosive expansion of our understanding of the structure and the function of the cardiovascular system (CVS) and of our ability to evaluate it, using invasive and non invasive methods, are very effective in steady reduction in mortality. The use of Doppler ultra sound in CVS evaluation is a major break through. One of the important application of the techniques is it's ability to measure blood flow velocity, direction and whether the flow is continuous or pulsatile (wavy).

Accordingly, it was proposed that such a technique was a recent and non invasive in evaluation of the degree of congestion in the liver and the portal circulation in cases of congestive heart failure.

AIM OF THE WORK

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The aim of this work was to assess the liver functions among cases of congestive heart failure and to correlate them with the degree of heart failure. It was also aimed to assess the Doppler Ultrasonographic findings in the portal circulation among cases and to correlate them with the degree of heart failure.

REVIEW OF LITERATURE