

بسم الله الرحمن الرحيم



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شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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بالرسالة صفحات

لم ترد بالأصل



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Study of Muscle Cramps in Patients with Liver Cirrhosis

Thesis

B109EA

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(M.Sc) in Medicine**

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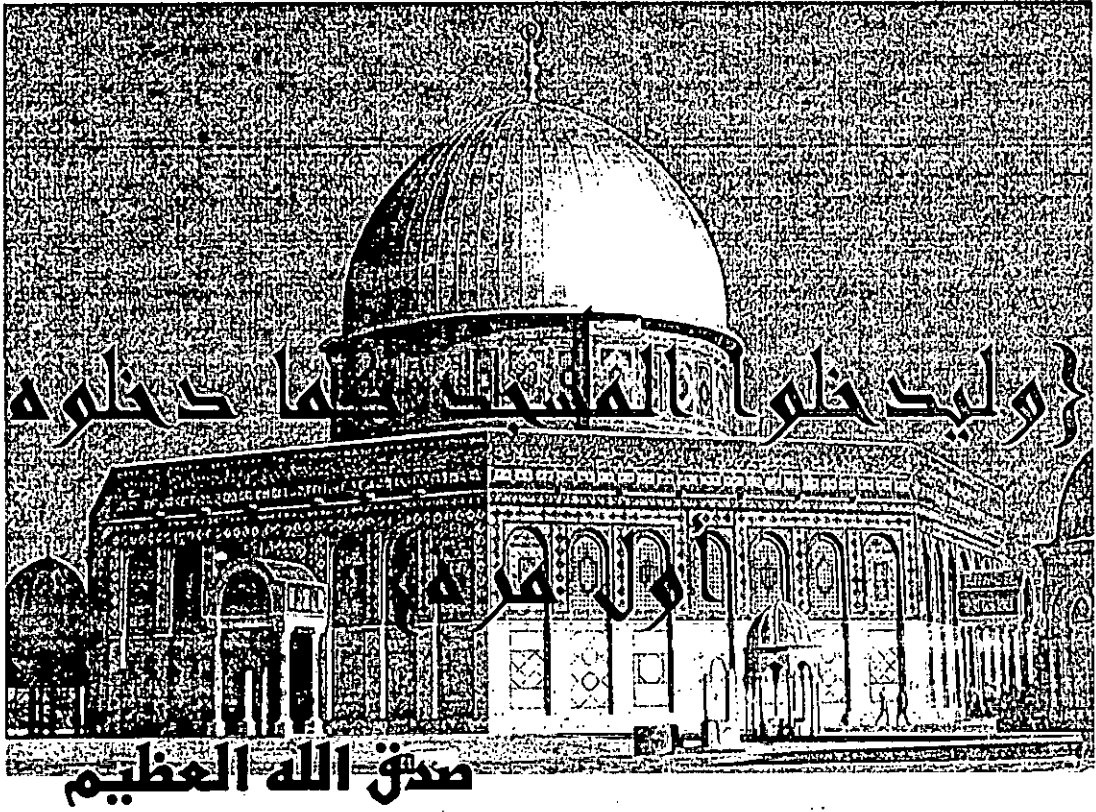
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ABBREVIATIONS

T.bil.----- total bilirubin

A.S.T.----- aspartate transaminase

A.L.T.-----alanine transaminase

A.P.----- alkaline phosphatase

Proth.T.----- prothrombin time

Na-----sodium

K----- potassium

Mg----- magnesium

Ca -----calcium

Po4 -----phosphorus

Cl----- chloride

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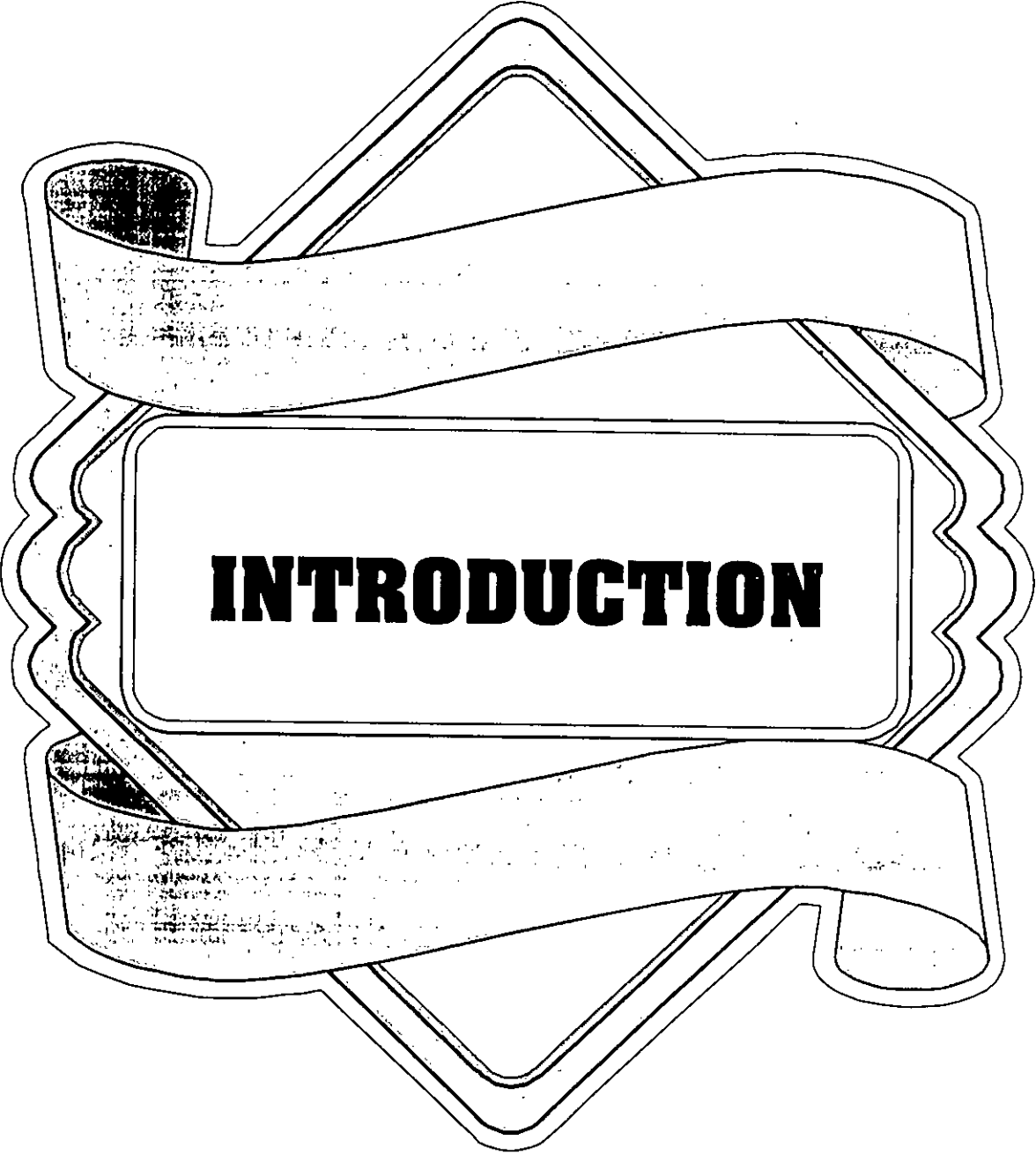
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INTRODUCTION

Introduction

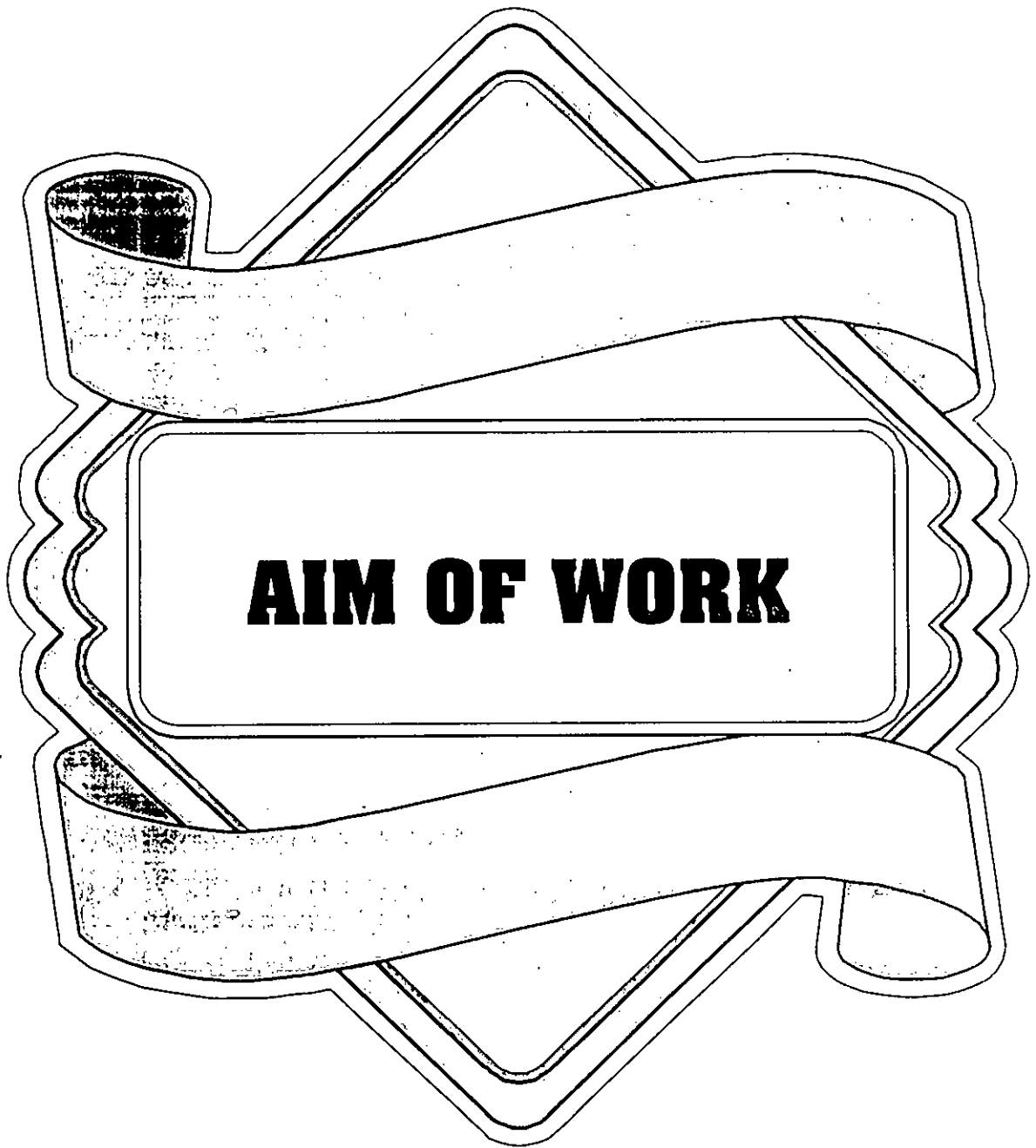
Muscle cramps are painful involuntary contraction occurring at rest and often during sleep (*Layzer R. B. and Roland L. P. 1971*). Chronic muscle cramps are at least one painful leg cramp, either occurring at rest or when awaking patient from sleep, per month for greater than one year (*Abrams et al 1996*). Electroencephalogram indicate that muscle cramps have high frequency action potential (*Saskin P. et al 1988*) that are unrelated to electroencephalogram abnormalities (*Jansen P. et al 1990*).

Many studies suggested that the prevalence of muscle cramps is increased in patients with liver cirrhosis. In 1985 and later in 1988 *Konikoff and Theodor* reported a higher prevalence of muscle cramps in 33 patients with cirrhosis as compared with that observed in matched group population without cirrhosis and suggested the inclusion of muscle cramps among the recognized symptoms of liver cirrhosis. The finding and conclusion were supported in larger series of patients by (*Chao et al 1989*), (*Kobabayashi et al 1992*) and (*Abrams et al 1996*).

However most of these studies did not fully assess the potential contribution of diuretic use, abnormal serum electrolytes or the severity of liver disease in development in muscle cramps. Furthermore, even considering the poorly

understood pathology of muscle cramps (*Mc Gee S. R. 1990*), others considered muscle cramps as a side effect of diuretic use in patients with ascites (*Salerno F. 1992*).

Even if cramps do not appear as a major clinical problem in patients with cirrhosis, their frequency and severity may seriously affect patients quality of life, thus efforts to better understand the origin of this symptom appear justified.



AIM OF THE WORK

To determine whether the increased prevalence of cramps in our patients is due to the severity of liver disease , related to the potential contributions of diuretic use and electrolytes disturbances or due to other causes.