Effect of Sulpride on Gastric and Gall Bladder Emptying in patients with Functional Dyspepsia

Thesis submitted for partial fulfillment
of Master degree in internal Medicine

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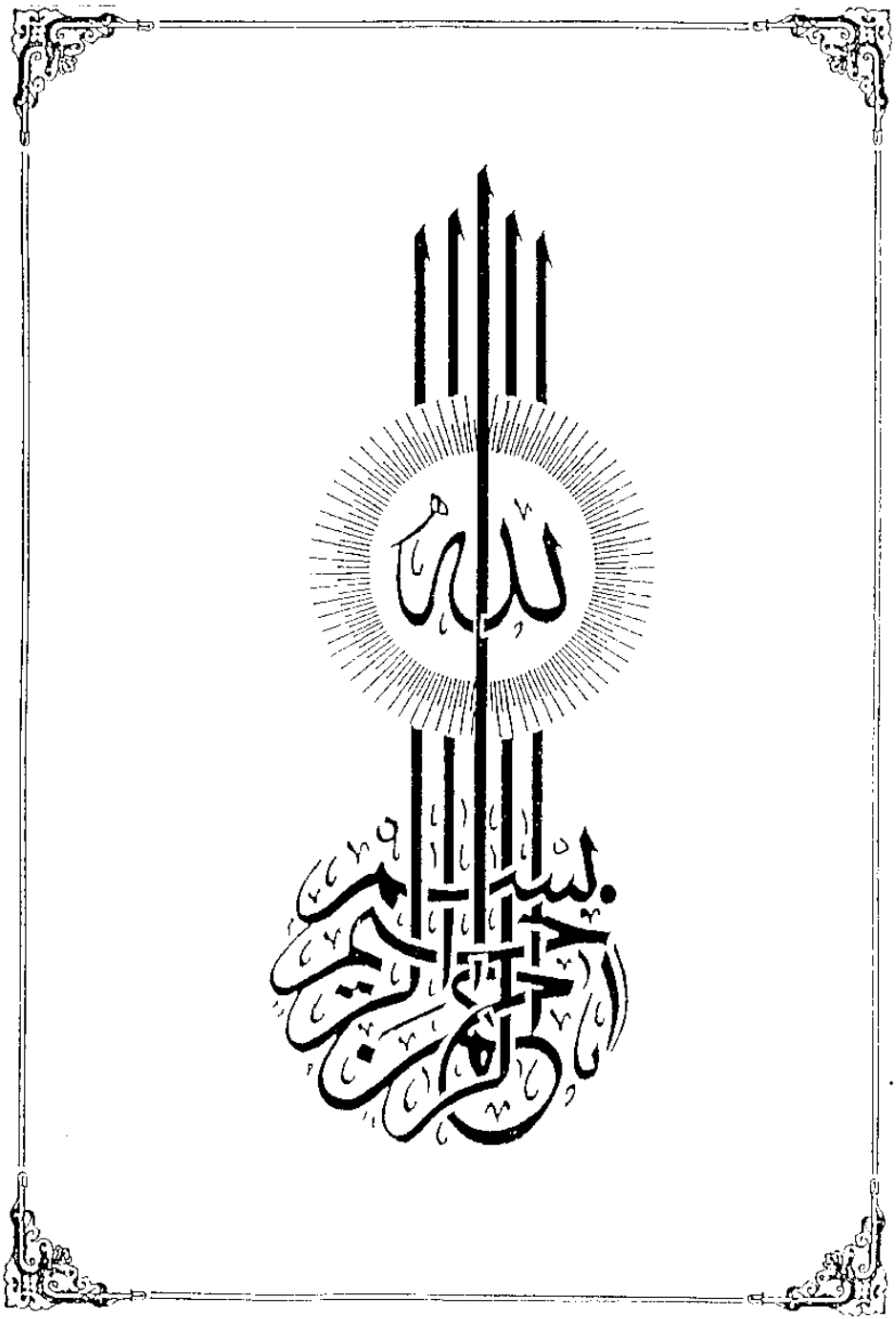

بسم الله الرحمن الرحيم

قالوا سبحانك لا علم لنا الا ما علمتنا انك انت العليم الحكيم

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List of Abbreviations

1- **G E** = gastric emptying

2- **D1** = Distance (1)

3- **D2** = Distance (2)

4- **B. M** = before meal

5- **A.M** = after meal

6- **B s** = before sulpride

7- **A s** = after sulpride

8- **G.B** = gall bladder

Introduction And Aim of the work

Introduction

Functional Dyspepsia is impaired accommodation of proximal stomach to a meal (**Hausken- T et al., 1996**)

On the other hand biliary dyskinesia is delayed response of gall bladder contraction to a meal (**James Taouli et al., 1994**)

Functional dyspepsia and gall bladder dyskinesia can be scanned by Ultrasonographic examination to investigate the post-prandial accommodation of the proximal stomach to a meal and delayed gall bladder contraction.

The symptoms of gall bladder dyskinesia and gastric dysmobility include epigastric pain and burning post prandial fullness, nausea and vomiting (**Monetti et al., 1996**)

Sulpride is a selective antagonist of the Dopaminergic (D2) Receptors .
It inhibits apomorphine induced vomiting and increase gastric motility and blood flow (**Davis et al., 1985 , Kuga et al., 1968**)

Sulpride was found to improve functional dyspepsia in patients with irritable bowel syndrome.

Aim of the Work

The aim of this study is to evaluate the relationship between gastric emptying and gall bladder emptying and other clinical features of functional dyspepsia .

On the other hand, patient will be subjected to ultrasonographic study before and after sulpride.

Physiology of the stomach:

Function of the stomach:

The stomach has 2 main function:
A serectory function and a motor function .The two main function go hand in hand in perfect hormony . in fed state, while in fasting both are dinished (**Abd-EL-Hamed., et.al 1994**)

The secretary function of the stomach:
There are five main cell types:

1- Chief or zymogen cells :

Secrete pepsinogen which is activated to pepsin by exposure to acid (**Hirschowitz. 1967**)

2- Parietal or oxyntic cells :

Present in the fundus and they secrete hydrochloric acid (**Guyton., 1991**)

3- The suraface epithial cells :

Are mucous secreting cells. They line the gastric mucosa They may give rise to Chief or parietal cells and thus may be considered multipotentials (**Hunt LE et .al 1962**)

These contractions can propel material into the duodenum or propel it retrogradely into the body of stomach (**Kelly.et.al 1980**) The stomach discriminates between solid and liquid contents and follows fluid empty before smalles particles and the latter before large particles.
(**Meyer J.H., et. al 1980**)

Factors which determine emptying of liquids :

The contraction of the fundus generate a pressure gradient between the stomach and duodenum that is responsible for the exit of liquid from the stomach (**Kelley et.al 1980**) recent experiments suggest that normal intragastric pressure of around 6 mm Hg would be insufficient by itself to cause emptyed of liquid.

The liquid emptying is by coordination of contraction of antrum, pylorus, and duodenum (**King et.al. 1984**)
The role of fundus in emptying of liquids may be prime the antral pump and enhance it.s efficiency by filling the antral pump during diastole and enhance it's efficiency during systole by increasing antral distension and preventing antral contents from being displaced back into the fundus (**Read and Haughton 1989**)
Surigical procedure as pyloric myotomy and fixing the diameter of pylorus accelerate the emptying of saline (**Read and Haughton 1989**)