THE EFFECT OF DIAZEPAM ON GASTRIC SECRETION

THESIS

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Master Degree in General Medicine

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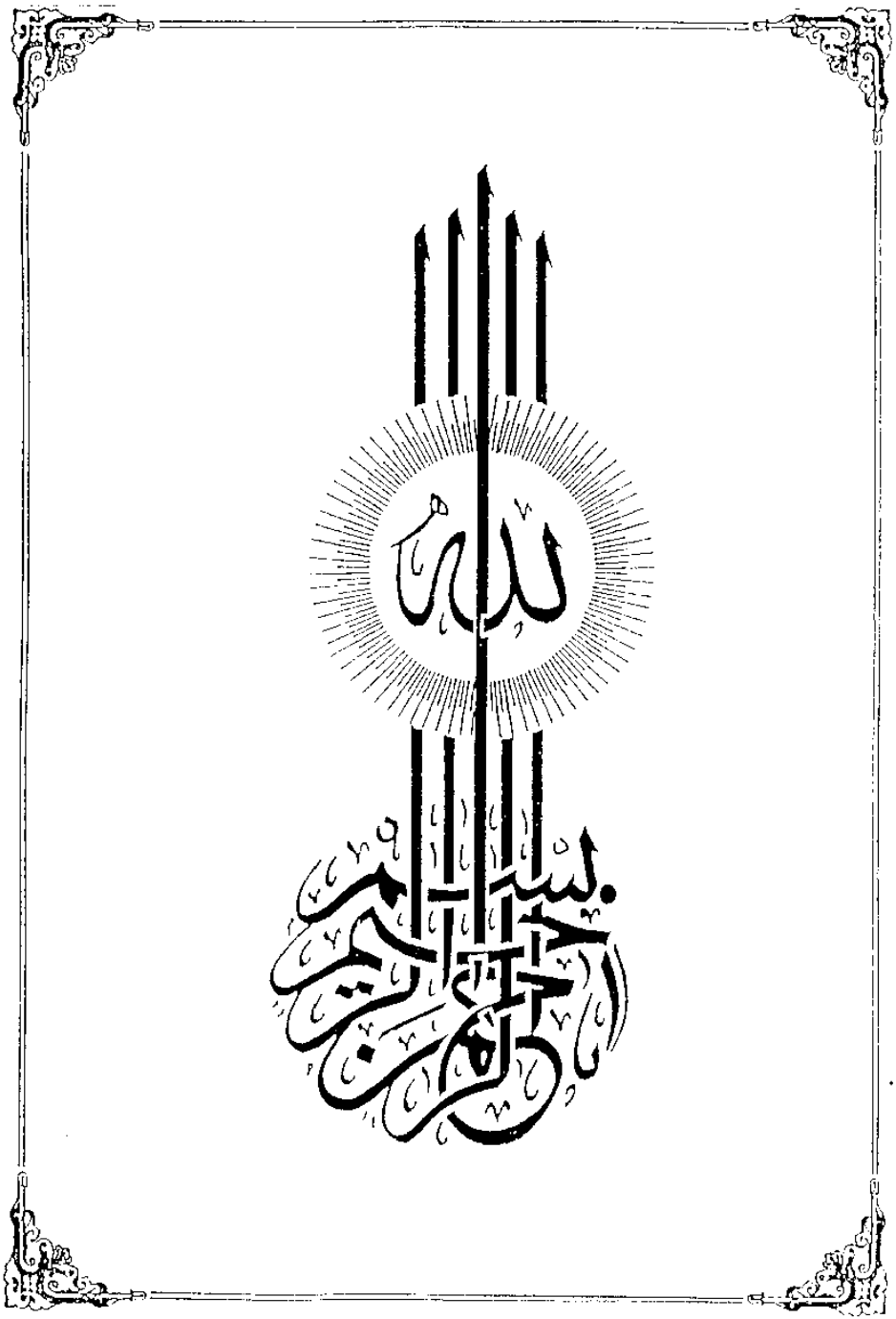
TO
MY WIFE & CHILDREN



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INTRODUCTION
AND
AIM OF THE WORK

INTRODUCTION AND AIM OF WORK

Diazepam has an anxiolytic effect on the hypothalamic level as well as a central smooth and skeletal muscles relaxant effect through marked enhancement of presynaptic inhibition and depression of the polysynaptic activity at the spinal level (Kleijn et al., 1977).

Diazepam can directly depress motor nerve and muscle function in healthy persons and relax spastic musculature in patients with complete spinal cord transection (Greenbaltt and Shader, 1974).

Duodenal ulcer may be the result of huperactivity of gastric secretory and motor functions, one of the permises of the psychosomatic theory is that emotional conflict mainly anxiety and psychic trauma might induce such hyperactivity (Wolf, 1965 and Birnbaum, 1968).

The aim of this work is to evaluate the effect of diazepam on gastric secretion as regard its volume, Hcl. and peptic activity in peptic ulcer patients and control groups.

SECTION I

REVIEW OF LITERATURE

(1)

ANATOMY OF THE STOMACH

ANATOMY OF THE STOMACH

(Weinshelbaum, 1974)

Gross anatomy:

The Stomach is found in all vertebrates with the exception of certain fishes. It is a specialized segment of the alimentary tract between the esophagus and small intestine.

General Consideration:

Parts of the stomach: The stomach is usually divided into cardia, fundus, body, antrum and pylorus. The cardiac portion is the small segment in the immediate vicinity of the esophagogastric junction. The fundus is the part lying above an imaginary horizontal line passing through the E-G. Junction. The body is the large segment between fundus and antrum. The antrum is the distal one third to one fourth of the stomach, and the pylorus is the region immediately proximal to the duodenum. There are important difference in the histology and function of the mucosa in different areas. The mucosa of the cardia primarily contains mucous secreting cells, that of the fundus and body contains parietal cells responsible for the production of HCl and pepsinogen, producing chief cells, the antral mucosa, or pyloric gland area is

devoid of chief cells and contains only a few parietal cells. It does not secrete HCl. and produces only a small amount of pepsinogen-like protease. The most notable function of the antrum is its production of the hormone gastrin.

Size, shape and position:

The length of the lesser curvature is approximately 10 cm. and the greater curvature is three to five times as long. Measurement of fixed stomachs obtained at autopsy yielded average values of 12.5 cm for the length of the lesser curvature and 31 cm for the greater. In the erect posture the most dependent portion of the stomach is a distal segment of the greater curvature and usually extends to the level of the fourth lumbar vertebra (range: 1st lumbar to 2nd sacral). The pylorus lies slightly higher, at the level of the third lumbar vertebra (range: 12th thoracic to 5th lumbar) and in a more posterior plane. It lies to the right of the midline in two thirds of patients and to the left in the remainder. In the supine position the fundus is the most dependent region of the stomach and in a recumbent patient may be contain a large volume of pooled secretions. The nearly empty stomach commonly takes the shape of a J or a reversed L. but there is

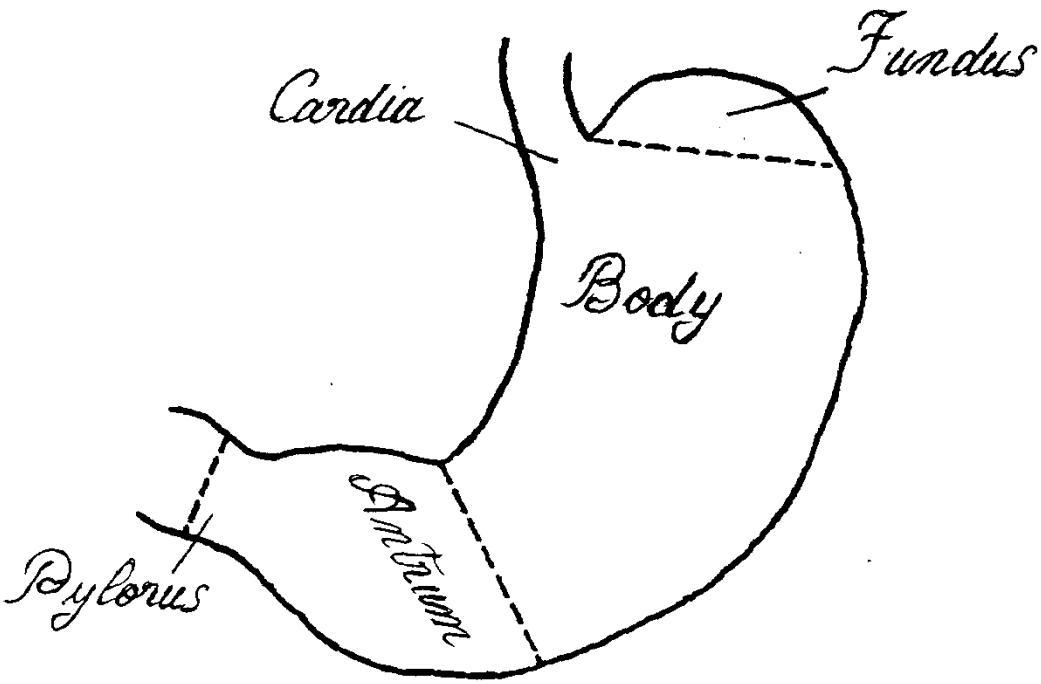

Fig. (1): Subdivisions of the stomach
(Quoted from: gastroenterology
3rd edition ed: Henry L. Bockus.
Vol.: I Chapt.: 19 Pag. 389 1974).

considerable variations among individuals, in addition the stomach is fixed at its esophageal and duodenal ends, but freely mobile in between, so that its shape is free to change with peristalsis, degree of filling and posture.

Relations:

Much of the stomach lies under the protection of the costal margins, and a mass in the fundus or high on the lesser curvature is therefore not palpable. The inferior border of the stomach usually is situated 8 to 15 cm below the xiphisternal junction and a mass in distal stomach can be felt in the epigastrium.

When grossly distended the stomach can be palpated and percussed in the epigastrium and left upper abdomen. The liver is situated above and to the right of the stomach, A portion of its left lobe rests on the anterior gastric wall. The spleen lies above and to the left of the stomach in a more posterior plane. The transverse colon passes inferior to the stomach. The posterior gastric wall rests on the body of the pancreas and on the mesentry of the transverse colon, The inferior recess of the omental bursa intervening.