SIGNIFICANCE OF HELICO BACTER PYLORI ORGANISM IN CASES OF PORTAL HYPERTENSION

THESIS

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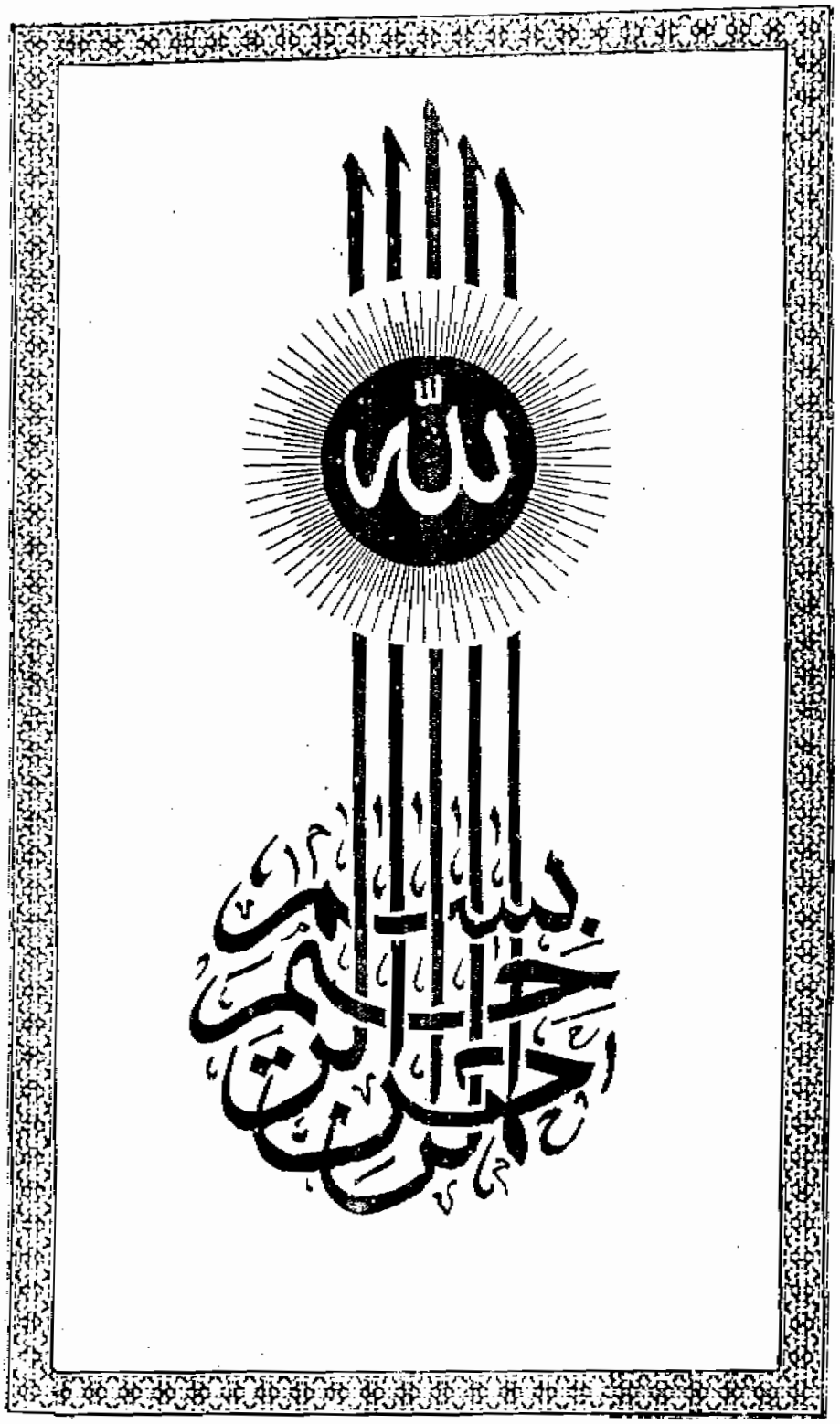
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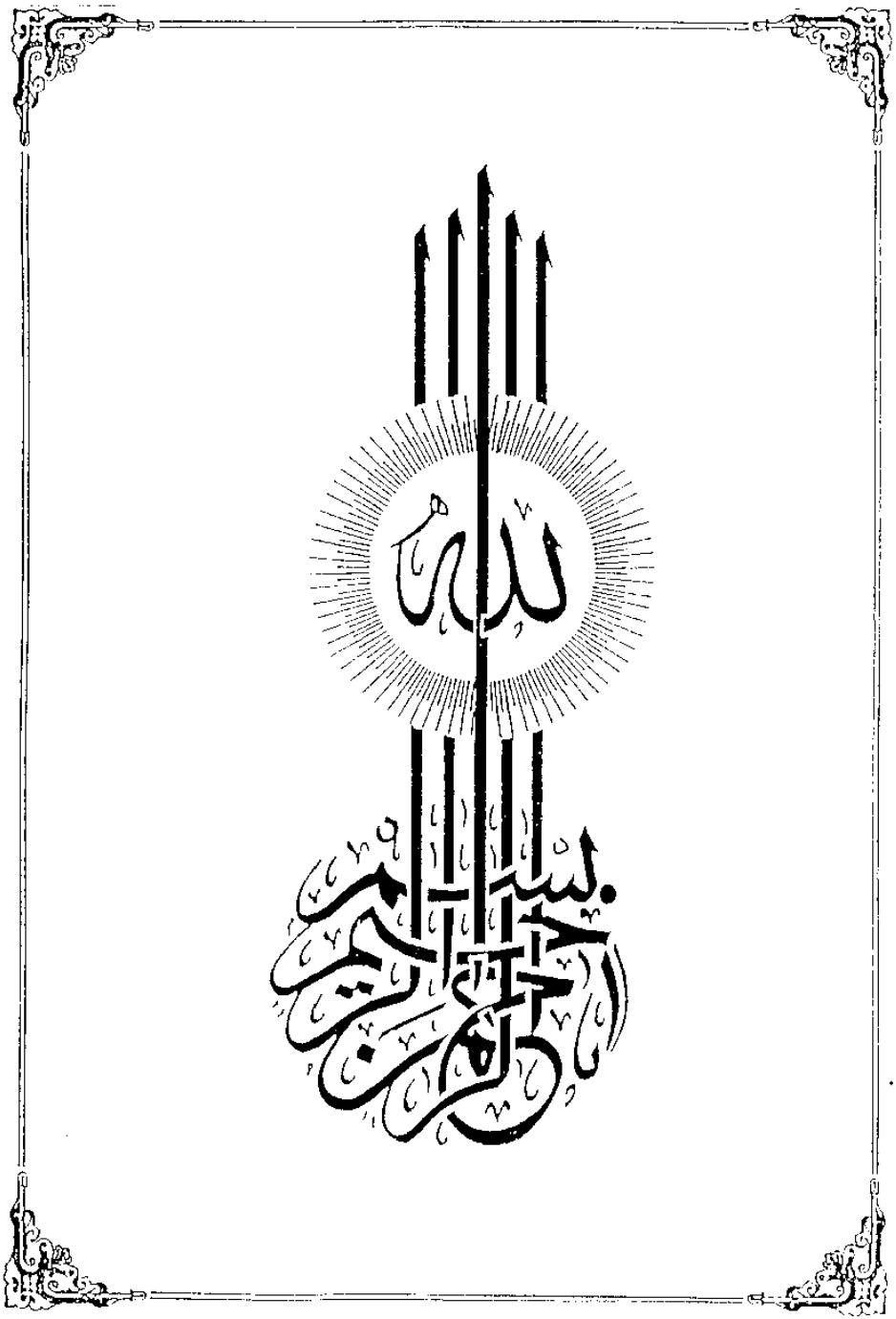

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INTRODUCTION AND AIM OF WORK

INTRODUCTION

Helico bacter organism has received much interest in cases of gastritis and gastrodudenal ulceration whereas several studies have reported its prevalance in these cases (Warren and Marshall, 1983).

Lately the association between H. pylori organism and gastric mucosal lesions in patients with portal hypertension has been a matter of controversy, and trying to clarify this connection, as well as its importance in cases of extra variceal bleeding which is a common cause of death in those patients; Several studies have reported the endoscopic features of the gastric mucosa in patients with portal hypertension and it has been suggested that there is a particular gastropathy associated with portal hypertension which is characterised histologically by vascular dilatation in the mucosa and submucosa in excess of that expected with the degree and activity of any concomittant gastritis (Mac Cormack, 1990).

AIM OF WORK

To study the significance of H. pylori and gastritis in patients with portal hypertension of different aetiologies.

To fullfil that we have studied fifty patients as follows: 30 patients with gastritis and portal hypertension of definite aetiology & 20 patients with gastritis only as a control group.

REVIEW OF LITERATURE

HELICO BACTER PYLORI

HISTORICAL INTRODUCTION

The earliest description of an organism present in the stomach was that done by **Bizzozero** in **(1893)**, when he studied the mucosa of the stomach of some animals. He described the presence of spiral organisms within the mucous membrane of the stomach and occasionally invading the lumen of the pyloric glands.

Salmon in (1896) has studied the spiral organism and has found it in the stomach of cats and rats confirming the work of Bizzozero.

Krienitz studied the stomach of patients with gastric carcinoma in (1906) and reported the presence of the spiral organisms in these patients.

In **(1924)** Luck and Seth has found the enzyme urease in the gastric mucosa of some animals but the study was not of great importance because the biochemical activity of the organism was not studied properly.

In **(1940)** Freedberg and **Banon** found an association between the organism and gastric cancer and peptic ulcer but they concluded that the organism is a normal inhabitant of the stomach that become more prominent in case of gastric cancer and peptic ulcer.

In (1975) a study on the mucosa of patients with gastric ulcer by Collin-jones was done, where they found out the association of gastric ulcer and these organisms in 80% of patients. Furthermore, they studied the histopathological changes and they found that the organisms were phagocytosed by polymorpho-nuclear leucocytes.

In (1987) Graham et al., documented the association between Helico bacter pylori and the occurrence of peptic ulcer disease.

Recently, S.P. Misra (1990) also has reported a relation between the presence of H. pylori and the gastritis associated in cases of portal hypertension of different aetiologies.

(I) BACTERIOLOGICAL ASPECTS OF H. BACTER PYLORI

(A) MORPHOLOGY OF H. BACTER PYLORI:

The outer cell membrane of Helico bacter pylori is double layered which is loosely fitted to the cell and has wavy morphology. The cytoplasmic membrane is thick at both polar regions (Simbert, 1984).

Helico bacter pylori has been studied by E.M. in (1988) by Kang et al., and it was found to be a curved, sometimes a U-shaped organism with gm -ve staining character. It is of 2.2 to 3 µm in length and 0.5 µm in diameter. It has unipolar 3-5 sheathed flagellae. This is in contrast to campylobacter jejuni, which is 1.4 to 3 µm long and 0.5 µm in diameter and has bipolar unsheathed flagellae•five different species of Helico bacter are listed in Bergeys manual (1974):- H. fetus, H. jejuni, H. coli, H. sputorum and H. consisus.

H. fetus is divided into two species, H. fetus subspecies fetus and C. fetus subspecies venerealis.

H. coil and jejuni were previously considered subspecies of H. fetus but DNA studies proved that they are separate species. H. coil and H. jejuni are identical