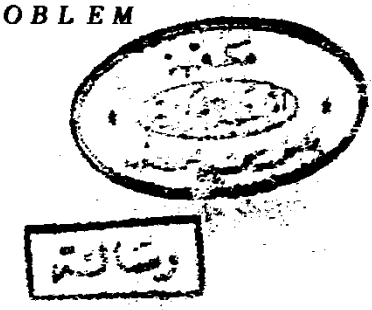
AN UPDATE ON THE PROBLEM OF DUODENAL ULCER



ESSAY SUBMITTED

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بسم الله الرحمن الرحيم

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

صدق الله العظيم
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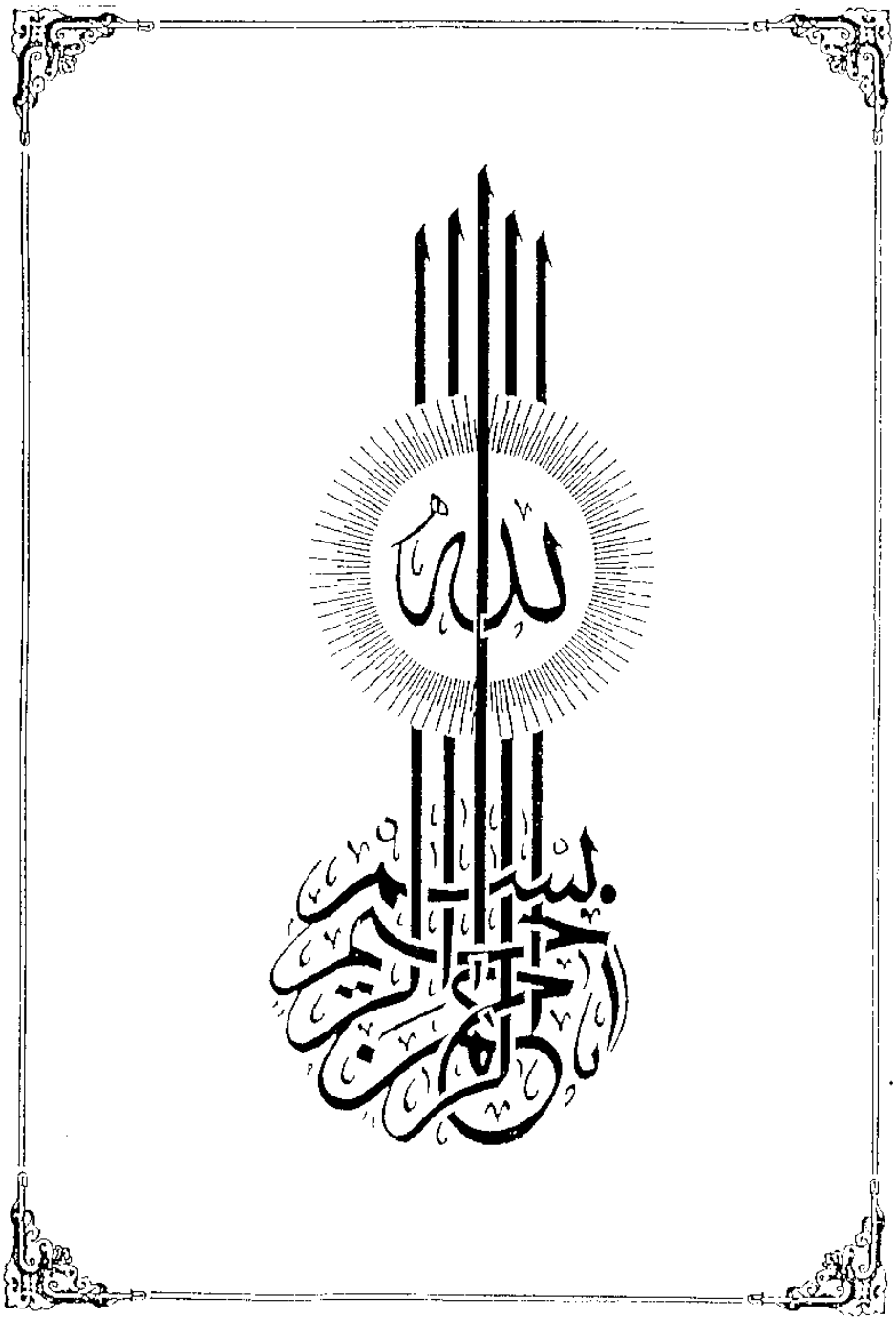

TO THE MEMORY OF MY FATHER

TO MY MOTHER

ACKNOWLEDGEMENT

It is a great honour to express my sincere gratitude to Dr . HUSSEIN KHOLEIF Asst.PROFESSOR in general surgery Ain Shams University, for his kind and constant supervision, continous encouragement , wise criticism , and great help which made me able to complete this work .

CONTENTS

INTRODUCTION

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The diagnosis of duodenal ulcer is not a difficult one . Likewise , the relief of symptoms of the uncomplicated disease can be achieved by the oral intake of a variety of drugs and by dietary regimes . Being chronic, the adherence of the patient to a given remedial scheem may prove to be very difficult.

Surgery is imperative when a complication arises . This is not the case when" intractability" is behind the patient"s seek for the help of the surgeon. There are many questions the surgeon should answer before he takes his decision. This decision is not- as it may appear sometimes- an easy one . We are aware of the fact that ulcer surgery replaces a group of symptoms "for which the patient seeks advice" by another group of symptoms that follow any form of surgical intervention . Then the first question must always be, is surgery necessary? Next is the choice from a variety of alternatives the one procedure that in the surgeons personal experience would leave the patient with maximum gain.Of the difficulties of decision making as well , is the due consederation that the surgeon should recognise when the patient for example, is very young, very old, a female or with a recurrent disease .

This essay is presented to display some of the important aspects that would make the process of decision making by surgeons less difficult .

AETIOLOGY AND TYPE OF PATIENT

Zender 1982 showed the role of psychosomatic disorders as one of the causes of duodenal ulcer.

The role of cigarette smoking in duodenal ulcer disease regarding short term healing and relapse rates is reported by Korman, et al,(1983), in their studies on patients treated with cimetidine, ranitidine, Oxmetidine and all powerful H2 receptor antagonists. In the short term, 95% of non smokers healed compared with 63% smokers and there was a correlation between failure to heal and the number of cigarettes smoked.

Association of peptic ulcer and other clinical Entities:

Storer (1979), reported that pulmonary emphysema occurs 3 - 4 times more often in patients with duodenal ulcer and added that duodenal ulcer is more common in cirrhotics.

Schutze et al.,(1983), reported that duodenal ulcer is more common in patients with chronic pancreatitis which is believed to be due to a decrease in concenteration of bicarbonate in pancreatic juice.

The role of Hypoparathyroidism and hyperparathyroidism was studied by Taylor et al in 1980 and showed that a decrease in serum calcium and a decrease in gastric secretion in hypoparathyroidism results in a

decrease in the incidence of duodenal ulcer, whereas an increase in serum calcium level and an increase in gastric acid secretion causes an increase in the incidence of duodenal ulcer.

Incidence:

The changing incidence of peptic ulcer:

The incidence of duodenal ulcer in the United Kingdom (UK) is now declining. Susser and Stein (1962) showed that the annual death rate of duodenal ulcer was greatest in the generation born in the final quarter of the 19th century followed by a decline, as shown by several survey's in the UK and USA (Wasterll, 1972). These changes have been reflected on the incidence of perforation.

Elashoft and Grossman in 1980 indicated that in the USA, there was a decline in admission to hospital for uncomplicated duodenal ulcer and for those with haemorrhage in the period 1970 through 1978, the same study showed a fall in death rate and decrease in the male-female ratio. The rising prevalence in women in recent years parallels their acceptence of increased responsibilities outside the home.

Age:

Duodenal ulcers may occur in any age group but are most common in the young & middle aged (20-45 years).

Peptic ulcer in children, the young and the aged:

The presentation of acute peptic ulcer in childhood was reviewed by Dunn et al, (1983) in 39 infants and children, 22 girls and 17 boys. Eleven patients were less than one year of age. peptic ulcers were secondary to systemic disease or ulcerogenic medications in 34 cases. Haemorrhage occured in 27 patients, perforation in 12.

Endoscopy was the most useful diagnostic procedure for Haemorrhage. Free air was seen on abdominal roentgenogram in all perforated patients. Ligation of the ulcer bed, vagotomy, and pyloroplasty were performed in 25 patients with bleeding. One patient required total gastrectomy, simple plication was performed in nine patients with perforation. Plication was combined with pyloroplasty in one patient and a vagotomy with antrectomy was required in another patient. operative mortality was 5.2% there were two late deaths (one of which was due to burn sepsis) no ulcer has recurred.

Also duodenal ulcer in children was reviewed by Gahukamble et al,(1983) in 29 children with duodenal ulcer received treatment during an 18 year period,25 were followed over a period that ranged from 3 to 18 years; 53.8% of the patients who received medical treatment either had recurrence or persistence of ulcer symptoms during adolescence or adulthood. Two patients with acute bleeding ulcers have remained well after vagotomy with drainage procedures. Pyloric stenosis was the most common indication for surgical intervention and in all such cases the patients underwent Truncal vagotomy with a drainage procedure and continued to live without any symptoms, except one in whom anastomotic ulcer due to incomplete vagotomy developed.

Peptic ulceration in adolescence was reviewed by Mohammed and Mackay (1982). Twenty two adolescents (mean age 14 years)with proved peptic ulceration are reported, 5 presented as an emergency with perforation or Haemorrhage, whilst the remaining 17 had typical ulcer dyspepsia. Despite intensive medical measures 17 patients required definitive surgery. 10 patients were under 18 years of age at the time of operation and all were operated on while under 25 years of age.

The results were excellent in 14 out of 17 patients at 5 year follow-up, suggesting that surgery should not be withheld on the ground of age alone. The role of histamine H2 receptor antagonists needs to be assessed in this type of patient.

Cutler in 1958 indicated that peptic ulcer presenting over the age of 60 years may be with a short history of pain or dyspepsia or with perforation or haemorrhage.

Sex:

Duodenal ulcers may occur in men more often than women, but the incidence in men is decreasing whereas that in women is on the rise due to strains of outdoors work. (Shearman, 1982).The ratio between male: female was 22:17 Dunn,et al.,1983).

Race:

Studies of peptic ulcer in developing countries (Tovey & Tuns Tall, 1975. Tovey;1979) have shown a high incidence of duodenal ulcer in some rural areas. (In Africa,India,Europe,North America and Australia).

Conment	Type of ulcer	Ulcer frequency
Africa	Almost all duodenal Stenosis and obstruction relatively frequent. Almost all men.	Common on W Coast. Nile-Congo watershed N Tanzania, N Ethiopia Rare in north Savannah of W Coast, S.Ethiopia N.Nigeria, most of Zaire and Zambia
India	Almost all duodenal Stenosis and obstruction relatively frequent. Almost all men.	Common in south and in Assam, rarer in north.
Europe	Duodenal and gastric both genetally common (DU two to four times as frequent as GU)	No recognized areas of rarity, but some regional variations e.g.DU two to three times as frequent in Scotland as in S. England.
N.America	Duodenal ulcer fairly common Gastric ulcer probably less frequent than in Europe.	Probably fairly even
Australia	Mainly duodenal ulcer, but relatively high frequency of gastric ulcer in younger women.	Gastric ulcer may be espectally common in New South Wales and Queensland.

(After Carter, 1983)

These areas are characterized by a high ratio of duodenal to gastric ulcer (20:1), a high male to female ratio (10 and 20:1), a peak age incidence 10 years earlier than in Western countries and a high incidence