ACUTE APPENDICITIS

A RETROSPECTIVE STUDY

THESIS

SUBMITTED IN PARTIAL FULFILLMENT FOR THE MASTER DEGREE

IN

GENERAL SURGERY

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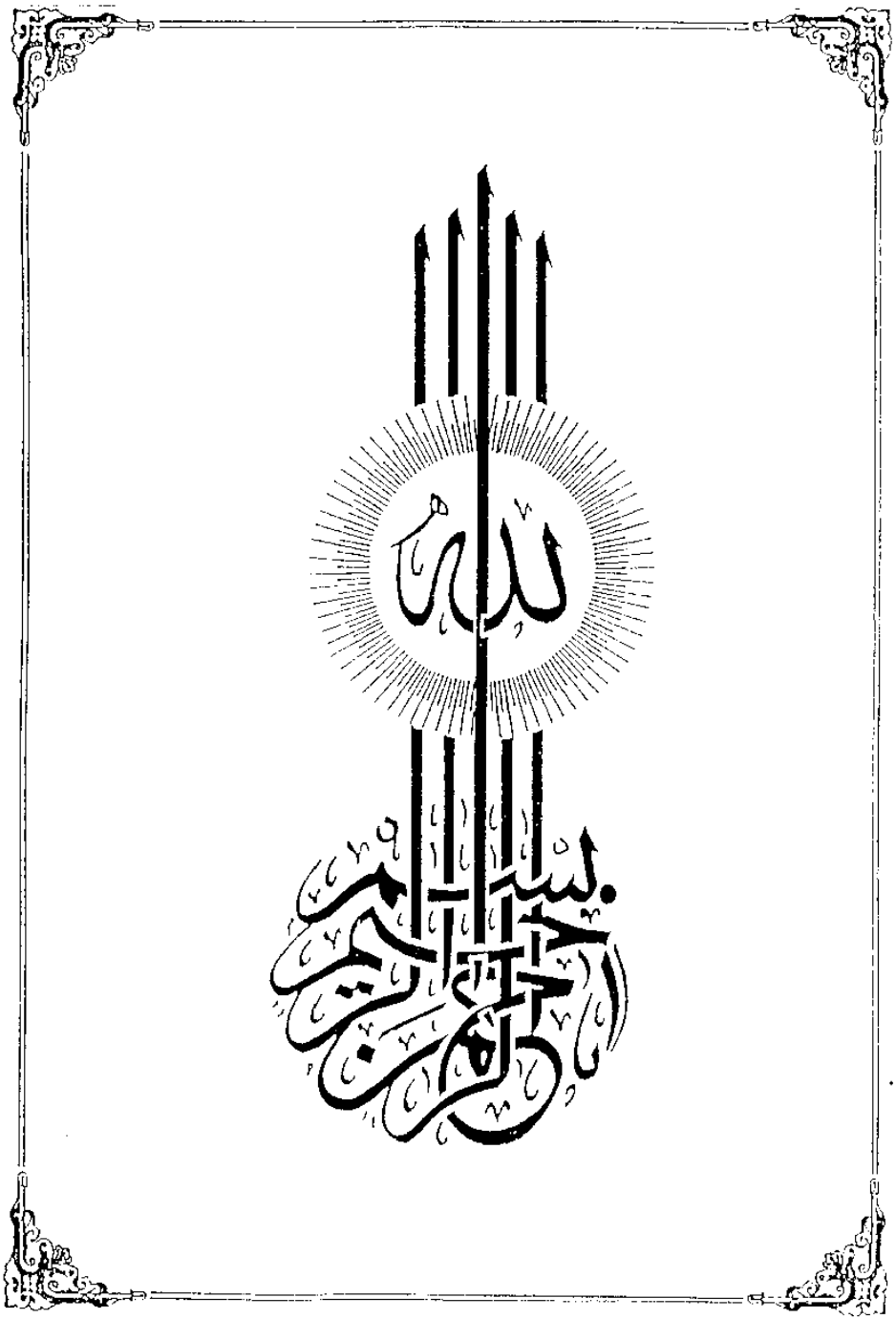
ACKNOWLEDGEMENT

I find a great pleasure to express my indebtedness and sincere gratitude towards our great Professor Dr. Tawfik Swedan, Professor of Surgery, Faculty of Medicine, Ain Shams University, for his continuous faithful advices and helpful guidance not only for this work, but also for every moment I have worked with him.

The deepest thanks must be extended to Dr. Mohamed Abd El-Momeim for his great effort and help for performance of this work.

Wagdi Aly El-Essawy

1986



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INTRODUCTION

Acute appendicitis is the most common acute surgical condition of the abdomen. The disease occurs at all ages but is most frequent in the second and third decades of life. It is quite rare in the very young, probably because the configuration of the appendix at this age makes obstruction of the lumen unlikely. Obstruction of the lumen is the dominant factor in the production of acute appendicitis fecaliths are the usual cause of appendiceal obstruction.

The incidence of acute appendicitis has significantly decreased in recent years. No reason for the declining incidence of appenditis has been established. Speculation has included changing dietary habits, changing intestinal flora, better nutrition, higher vitamin intake,antibiotics, and many other reasons. (Storer, 1984).

The correct treatment of appendicitis in all its aspects is one of the most important subjects in abdominal surgery because it is the most common major abdominal condition calling for emergency operation. The treatment of acute appendicits is appendectomy - and the sooner done the better. (Ellis, 1985). The mortality from appendicits has significantly decreased.

(Storer, 1984).

The deaths that do occur in appendicitis are usually in infants or in the elderly, and are associated with delays in diagnosis and the presence of advanced peritonitis. They are also associated with patients suffering from other serious medical conditions, particularly myocardial or pulmonary disease. (Ellis, 1985).

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ACUTE APPENDICITIS

A HISTORICAL SURVEY

This is an attempt to tell the story of the recognition of appendicitis, to trace the development of surgical treatment and to illustrate its importance by specific examples.

The physician - Anatomist, Berengario Dacapri, first described the appendix in 1521. After thestudies of morgagni, published in 1719, little additional information regarding the gross anatomy of the appendix was added. The fact that some early anatomists termed the appendix "cecum" added lasting confusion in interpreting early writings.

Acute inflamm of the vermiform appendix is probably as old as man, and an egyptian mummy of the Byzantine era exhibits adhesions in the right lowerquadrant, suggestive of old appendicitis.

The account of Lorenz Heister in (1711) is an unequivocal description of perforated appendix with

abscess. He performed an autopsy on a recently executed criminal and described opening a small abscess adjacent to a blackened appendix.

Parisian surgeon, Mestivier, in 1759 reported an autopsy on a 45-year-old man who died shortly after surgical drainage of right lower quadrant abscess. Mestivier described perforation of the appendix by a pin, and ascribed the abscess to the perforation. This, the second unequivocal identification of the appendix as the site of disease.

A description of a perforated appendix containing a fecalith with normal cecum, found during autopsy at a 5-year-old boy, was published by John Parkinson in 1812, Louyer-Villermay described gangrenous appendices demonstrated at autopsies in two young men. Parisian physician, Francois Melier, who added six additional autopsy description of appendicitis. Melier clearly suggested the possibility of surgical removal of the appendix in 1827. Generally, it is said that Melier's paper was largely ignored because of the influence of Baron Guillaume Dupuytren, the leading surgeon of Paris.

In 1839, Bright and Addison, the great physicians of Guy's hospital, clearly described the symptomatology of appendicitis. Volz, in 1846, again identified the appendix as the site of origin at right lower quadrant inflammatory disease. In June 8 th 1886, Dr. Reginald H. Fitz emphasized that most inflammatory disease at the right lower quadrant begins in the appendix and he described the clinical picture of appendicitis.

The first known surgical removal of the appendix occured in December 1735. Claudius Amyuand, Huguenot refugee and a founder of St. George's hospital in London, operated on an 11-year-old boy with a long standing scrotal hernia and a fecal fistula of the thigh. Through scratal incision, hernial sac was opened, revealing omentum surrounding an appendix that was perforated by a pin giving rise to fecal fistula. The appendix and omentum were amputated, and the fistula opened with recovery. In 1848, Henry Hancock described treatment of acute peritonitis through right lower quadrant incision. Two weeks after drainage, a fecalith was removed from the wound and the patient recovered Willard Parker, published a paper in 1867 recounting his experience,s, beginning in 1843, with drainage of

appendiceal abscesses. In 1880, Lawson Tait, operated on a 17-year-old girl, removing a gangrenous appendix. The patient recovered. Groves, in 1883 removed an inflammed appendix of a 12-year-old boy. In 1884, Mikulicz performed an appendectomy, but the patient did not survive.

In 1886 R.J. Hall performed a successful appendectomy within an irreducible inguinal hernia. In 1889, the first of several important papers by Mcburney was published. 1898, Bernays reported 71 consecutive appendectomies without a death. In 1902, Dr. A.J. Ochsner of Chicago published the first edition of a handbook of appendicitis which advocated non operative treatment of spreading peritonitis.

In 1904, Dr. John B. Murphy of Chicago reported personal experience with 2000 appendectomies performed between. March 2, 1880 andJune 22, 1903.

The operative techniques used for appendectomy have never become completely standardized. Midline vertical incision were used in most early cases, but exposure was not adequate. The incision described by William Henry 1897 was a vertical incision through the lateral edge of the right rectus sheath. Denervation of

muscle was common the lateral muscle-splitting a "grid-iron" incision after Dr. Charles McBurney at New York. Mcburney's publication was in the July 1894.

Elliot of Boston advocated a transverse skin incision 1896. Medial extension of the gridiron incision by dividing the lateral portion at the rectus sheath was described by harrington, Weir and Fowler, but is most often called the fowler - Weir extension. (Williams, 1983).

ANATOMY OF THE VERMIFORM APPENDIX

The appendix is the only organ in the body that has no constant anatomic position, in fact its only constant feature is its mode of origin from the caecum (Ellis, 1985).

The Vermiform appendix is a narrow, worm-shaped tube, which springs from the posteromedial wall of the caecum, 2 cm or less below the end of the ileum. The appendix varies from 2 to 20 cm in length the average being about 9 cm. It is longer in the child than in the adult and may atrophy and become smaller after mid-adult life. (Williams and Warwick, 1980).

The various positions of the appendix are :

Paracolic (the appendix lies in thesulcus on the outer side of the caecum.

Retrocaecal (the organ lies behind the caecum and may even be totally or partially extraperitoneal).

Pre ileal, postileal, promontric (the tip of the organ pointing toward the promontory of the sacrum).

-Pelvic (here the appendix dips into the pelvic cavity)

-Midinguinal (subcaecal).

The retrocaecal position is the most common.

Wakeley (1933) in an analysis of 10.000 cases at postmortum, gives the location of the appendix as follows :

Retrocaecal 65.28% , pelvic 31.01%, subcaecal 2.26% preileal 1% and right paracolic and postileal, 0.4%. (Ellis, 1985).

The appendix is connected by a short mesoappendix to the lower part of the mesentry of the ileum this fold, in the majority of cases, is more or less triangular and as a rule extends along the entire length of the tube, the canal of the vermiform appendix is small, and communicates with the caecum by an orifice which is placed below and a little behind the ileocaecal opening. The orifice is sometimes guarded by a semilunar valve formed by a fold of mucous membrane. The lumen of the appendix may be partially sor completely obliterated after mid-adult life.