# THE ROLE OF PERITONEAL ASPIRATION CYTOLOGY IN THE DIAGNOSIS OF ACUTE APPENDICITIS

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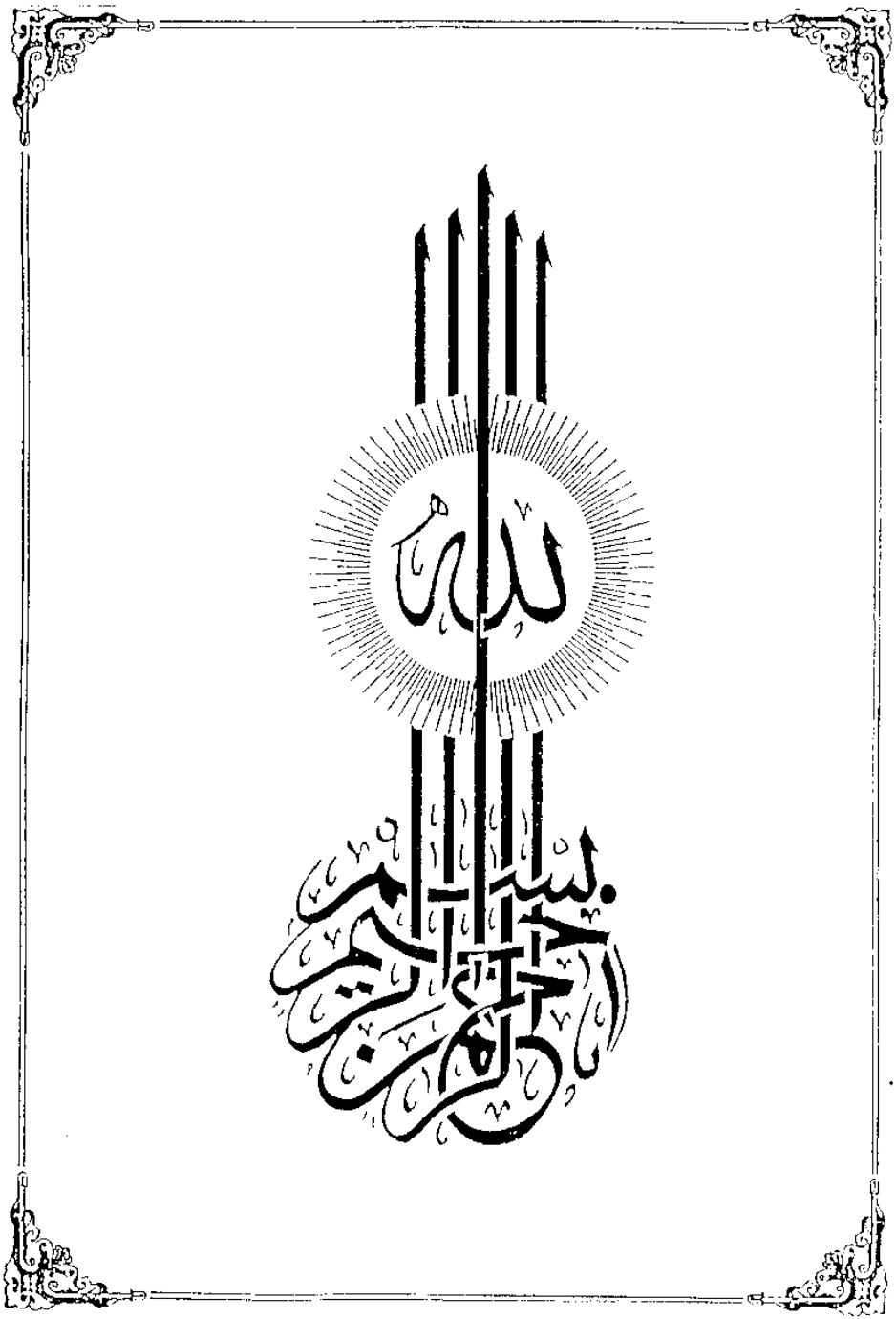

بسم الله الرحمن الرحيم

﴿ربنا افتح بيننا وبين قومنا بالحق وأنت خير الفاتحين﴾

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*Ibrahim Abd El-Megid Ibrahim*

# CONTENTS

# INTRODUCTION AND AIM OF THE WORK

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There is no doubt that acute appendicitis is the most common surgical emergency in Western counries with an incidence of 1.5 & 1.9 per thousand popultion in males and females respectivley *(A. Cuschieri, 1995).*

As the usual picture of acute appendicitis is often not classical, so the accurate diagnosis of acute appendicitis is recognised to be one of the most difficult problems in the management of the patient with acute abdominal pain *(Thompson et al., 1992).*

Prolonged observation until the symptomes and signs makes the diagnosis more obvious not an ideal solution as it is expensive to health service as delyed diagnosis could result in perforation and peritonitis, and to prevent perforation and peritonitis, the price paid is the frequent removal of normal appendices (15 - 30%) which not inexpensive to patients as it carry with it a complication rate not much lower than after removal of pathological appendices in the form of immediat postoperative complication up to 15% of patient. Some patients may even die after negative laparotomy, additional patients may suffer late complication such as intestinal obstruction, incisional hernia, and sterility due to fimbrial adhesions *(Hoffmann and Rasmussem, 1989).*

Thus a surgon confroning a patient suspected of having acute appendicitis is wedged between the scylla of prforation and the charybdis of negative appendicectomy.

To avoid these complication early accurate diagnosis is the role. Diagnostic aids such as ultrasonography, barium enema, computer-aided diagnosis and laparoscopy have all been advocated. However these are time consuming, labour intensive and not always avaliable in emergency situation. Laparoscopy is also invasive procedure and requires general anaesthesia *(Caldwell et al, 1994).*

In such patients seeking an evidence of cellular changes in peritoneal cavity is a logical approache, and becaue neutrophil is abscent (or nearly so) from quiescent peritoneal cavity, yet becomes the predominant cell in peritonitis, detection of neutrophil percentage in the peritoneal cell sample can be used as a good indicator for acute peritoneal inflammation and is consequently a sensitive and specific predictor of a surgical causes of acute abdominal pain *(Stewart et al., 1986)* and if the neutrophil percentage in the peritoneal cell sample is more than 50% of the nucleated cell the test is considered to be positive *(Caldwell et al., 1994).*

## Aim of the work :

Is to evaluate the role of peritoneal aspiration cytology in the diagnosis of acute appendicitis.