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SINGLE LAYER (EXTRAMUCOSAL) **TECHNIQUE VERSUS TWO LAYERS TECHNIQUE** OF INTESTINAL ANASTOMOSIS

Thesis

Submitted for Partial Fulfillment of Master Degree in 617,554

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بسم الله الرحهن الرحيم

(سورة طه. أية رقم.١١٤)

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List of abbreviations

Abbreviations

Meaning

AJCC/UICC
The American Joint Committee on Cancer and the International
Union Against Cancer
adenosine triphosphate

CCK
Cholecycto-kinin

CT Computed tomography

D.V.T Deep venous thrombsis

ERCP Endoscopic retrograde cholangiopancreatography

GI Gastrointestinal

LBO large bowel obstruction

MD Meckel's diverticulum

MMC migrating motor complex

mV millivolts

NG Nasogastric tube

NS Non-Significant

NSAIDs nonsteroidal anti-inflammatory drugs

PDS Polydioxanone

SBFT Small bowel follow - through

SBO small bowel obstruction

SMA Superior mesenteric artery
US ultrasonography
VIP Vasoactive intestinal peptide

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Introduction

INTRODUCTION

Intestinal anastomosis has been successfully performed for more than 150 years using a variety of techniques, materials and devices. Of these, the method that has been proven successful in most situations and in the hands of most surgeons has been the two-layer anastomosis using interrupted silk sutures for an outer inverted seromuscular layer and a running absorbable suture for a transmural inner layer. The only appreciable shortcoming of the two-layer technique is that it is somewhat tedious and time-consuming to perform (Burch et al., 2000).

Single-layer bowel anastomoses have conventionally been constructed using an interrupted suture technique. A single-layer continuous technique has been avoided on the grounds that it may predispose to ischaemia of the bowel ends. It is however, increasingly popular to perform such anastomoses using a continuous suture (Sarin and Lightwood, 1989 and AhChong et al., 1996).

Several recent reports have advocated the use of a continuous single-layer technique for intestinal anastomosis. Reported advantages include shorter time for construction, lower cost, and perhaps a lower rate of anastomotic leakage (Burch et al., 2000).

Compared with other techniques used for intestinal anastomosis, the one-layer technique is safe and easy to apply using different absorbable suture materials. Some advocate that the single-layer extra- mucosal technique is probably the safest method available for intestinal suture (Carty et al., 1991 and Olah et al., 2000).

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