## **GASTRO-INTESTINAL STOMAS**

**ESSAY** Submitted in Partial Fulfilment of Master Degree in **General Surgery** 

> By HANY MOHAMED FARES M.B., B.CH.

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Under supervision of

### PROF. DR. MAGED ZAYED

Professor of General Surgery Ain Shams University

## PROF. DR. ALAA ABDALLA

Assistant Professor of General Surgery Ain Shams University

Faculty of Medicine Ain Shams University 1993







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## **CONTENTS**

	Page	
* Introduction	1	
*Part I Gastrostomy		
- Types and indications of gastrostomy	4	
- Operative procedures of gastrostomy	9	
- Complications of gastrostomy	24	
* Part II Ileostomy		
- Evolution of ileostomy	<b>28</b>	
- Types and indications of ileostomy	33	
- Ileostomy operations and surgical procedures	38	
- Complications of ileostomy	52	
- The continent ileostomy (Kock pouch)	<b>6</b> 8	
- Tube enterostomy after small bowel resection	82	
* Part III Colostomy		
- Evolution of colostomy	85	
- Indications of colostomy	89	
- Types and surgical procedures of colostomy	94	
- Caecostomy	106	
- Continent colostomy	110	
- Complications of colostomy	119	
- Colostomy closure	124	
* Part IV Stoma care	133	
* Summary	145	
* References		
* Arabic Summary		

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## LIST OF FIGURES

Fig. No.	Title	Page
1	Stamm gastrostomy.	11
2	Witzel gastrostomy.	13
3	Janeway gastrostomy.	15
4	Percutaneous endoscopic gastrostom	у
	(pull technique).	17
5	Percutaneous endoscopic gastrostom	у
	(push method).	19
6	Percutaneous endoscopic gastrostom	у
	(introducer method).	21
7	Eversion of stoma	31
8	End ileostomy	43
9	Split ileostomy	47
10	End-loop ileostomy.	49
11	End-loop ileocolostomy.	51
12	Kock continent ileostomy reservoir	72
13	The nipple valve	73
14	Drainage of continent ileostomy	
	reservoir	75
15	Tube enterostomy after small bowel	
	resection	84
16	Colostomy fixation by glass rod	98

17	End-loop colostomy	100
18	End colostomy	105
19	Tube caecostomy	108
20	Magnetic stoma cap.	111
21	Colostomy plug.	114
22	Circumferential balloon sphincter	117
23	Szinicz device	118
24	Closure of loop colostomy	130
25	Colostomy irrigation	140

# INTRODUCTION

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## **INTRODUCTION**

The stoma or ostomy is defined as the creation of an artificial opening surgically designed between the intestinal or urinary tract and the surface of the body. It is kept opened for drainage or feeding purposes to restore nutrition in patients who can no longer swallow even their own saliva.

Dozois et al (1980) have stated that external stomas maybe temporary or permanent. The commonest temporary stoma is the loop colostomy which is usually constructed from the transverse or sigmoid colon, to defunction the large bowel distal to it. The stoma is closed once the purpose for which it is created has been accomplished.

Permanent stomas on the other hand, either an end colostomy or Brooke ileostomy, is usually carried out when there is no possibility of re-establishing the continuity of the bowel.

The construction of intestinal stomas is an integral part of many operations for colorectal tumours, trauma, diverticulitis, and inflammatory bowel disease. Clinical advances such as development of new surgical techniques, the marked increase in the availability of stoma care products, and the rapid growth of enterostomal therapy as a nursing speciality have improved patient care and helped reduce the frequency of stoma related complications. Despite these advances, proper stoma construction and management remains vital, yet this subject has been underemphasized in many surgical training programs.

Unfortunately, the formation of an ileostomy or colostomy is often regarded as a minor part of the overall procedure and is assigned to the least experienced member of the operative team. With careful preoperative planning and close attention to technical detail, many complications of intestinal stomas can be prevented (*Abcarian and pearl, 1988*).

Whenever possible, the enterostomal therapist should be involved in the preoperative planning of a stoma. This nurse specialist can provide important information about the stoma as well as offer much-needed reassurance to the patient and the family (*Abcarian and pearl, 1988*).

The reaction of the patient to a stoma and the loss of anus may cause profound distress and decrease in social relations. So, precise attention to the indications is essential. Sound knowledge of the various types, techniques, management, complications and management of complications is also essential.

# PART I

## GASTROSTOMY

## GASTROSTOMY

Since the advent of total parenteral nutrition, feeding stomas are less frequently called for than in the past. However, total parenteral nutrition is expensive, it needs special nursing and carries the risk of complications. It should be reserved for short-term, and not used for long-term care of patients (Gasson, 1982).

Lim (1981) have shown that while total parenteral nutrition is superior to gastrostomy feeding, in achieving positive nitrogen balance and weight gain, gastrostomy is still preferable since it is cheap, simple and safe. The patients can remain active, mobile and self-reliant while being cared for, and fed in their own homes.

## **CHAPTER 1**

### **TYPES AND INDICATIONS OF GASTROSTOMY**

#### **Decompression:**

There are certain occasions when surgeons may anticipate the need for long term post-operative decompression of the stomach, and choose gastrostomy in place of nasogastric aspiration, since it is more comfortable for the patient. Operations for post-vagotomy gastric stasis, massive adhesions, or gross intra-abdominal sepsis, may all be followd by prolonged ileus, for which long-term post-operative decompression may be required. Occasionally, the inability to pass a nasogastric tube because of nasal deformities, will necessitate a temporary gastrostomy for post-operative decompression (Gasson, 1982).

### **Feeding Gastrostomy:**

This is a surgical procedure commonly established to provide a route for gastro-intestinal alimentation in patients who are unable to maintain adequate nutrition by oral ingestion of food (Bohdan et al, 1982).

The indications for feeding gastrostomy are many, involving adults, children and neonates:

### Adults:

The majority of patients who required feeding gastrostomy had cerebrovascular diseases, or head injuries, and neck cancer. The next most frequent indications were oesophageal cancer and brain neoplasms (Bohdan et al, 1982). Obstructive lesions of the oropharynx, or oesophagus and oesophageal strictures are the commonest indications for gastrostomy. Occasionally, neurological defects in the mechanism of deglutition, or abnormalities in the normal swallowing reflex, will necessitate temporary feeding via a gastrostomy tube, until mobility of the oesophagus is restored (Priscilla, 1982).

Penetrating wounds of the pharynx and oesophagus, either from assaults as gun shots or stab wounds, or from instruments as endoscopes, are not infrequent causes of oesophageal perforations. If such perforations are recognised early and dealt with adequately, the problem will be over, but when they are undetected and treatment is delayed until the development of mediastinitis or oesophageal fistula, proper treatment may require open drainage, with the creation of a feeding gastrostomy (Ajalat & Mulder, 1984).

In patients with head and neck cancer where radical curative surgery is required, the mechanism of deglutition may be temporarily, or even permanently damaged. Making a gastric stoma is preferable to prolonged nasogastric intubation. In carcinoma of oesophagus or corrosive strictures where resection and reconstruction using the stomach is contemplated, the patient can be fully restored preoperatively, and properly maintained postoperatively, by a feeding gastrostomy, provided that there is no contraindications to preoperative preparation of the patient (Gustavson and Klingen, 1978).

### **Children and Neonates:**

Gastrostomy tube feeding provides a reasonable alternative to nasogastric intubation, for meeting the nutritional requirements of sick infants. It is a relatively safe, simple and effective means of providing nutrition for sick neonates. The method best serves infants with congenital abnormalities, such as oesophageal atresia, or those with chronic lung conditions, or infants who require respiratory care (Shannon, 1983).

Gastrostomy plays a major role in the management of the upper gastrointestinal tract obstruction. In neonatal oesophageal atresias and corrosive strictures, gastrostomy is used for feeding with more distal obstructions, such as duodenal and jejunal atresias, the procedure is used for both feeding and