

## Surgical workshop

### Surgical gastrointestinal endoscopy in Ibadan, Nigeria

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#### Introduction

Fiberoptic colonoscopy is about 43 years old now<sup>1</sup>. Improvement in instruments led rapidly to wide acceptance of colonoscopy in diagnosis and therapy of colorectal diseases<sup>1</sup>. The diagnosis of benign and malignant neoplasms was revolutionized by colonoscopy. Flexible fiberoptic endoscopes have now replaced rigid endoscopes because of the enhanced safety, ease of application and ability to link to a monitor (videoscopes) so that the patient may even follow the procedure. The use of these flexible fiberoptic endoscopes for both upper and lower gastrointestinal tract examinations started in the University College Hospital Ibadan as far back as 1986; however most of these examinations were carried out by the physicians of the gastroenterology unit<sup>2</sup>. From 1989 to 1990 some sporadic endoscopic examinations were done by one surgeon, but when he left the service surgical endoscopy was done by the medical gastroenterologists. Recently, the hospital acquired new scopes available for gastrointestinal surgeons, medical gastroenterologists, pulmonologists, otorhinolaryngologists and thoracic surgeons. Surgical endoscopy is now done in the Division of Surgical Gastroenterology routinely .

This is a preliminary report of our experience with surgical upper and lower gastrointestinal endoscopies in the University College Hospital Ibadan, Nigeria.

#### Materials and Methods

The city of Ibadan has a population of about 2.5 million inhabitants and the University College Hospital serves as the only tertiary center in this city where flexible fiberoptic endoscopy is performed. The surgical gastrointestinal diseases commonly encountered in this locality that are appropriate for endoscopy include bleeding duodenal or gastric ulcers, carcinoma of the stomach, carcinoma of the esophagus, haemorrhoids, fistula-in-ano and colorectal carcinoma.

The endoscopy suite has Olympus gastrofiberscopes, sigmoidoscopes and colonoscopes. There are additionally Pentax scopes (gastrofiberscope and sigmoidoscope) for the supplied by Federal Government to the endoscopy unit. There are new adaptors for the camera and monitors for videoendoscopy.

#### Patients Preparation

About 75% of the patients are scoped on outpatient basis. They are seen at surgical outpatients clinic on a Thursday and are scheduled for endoscopy on the Friday one week afterwards. Patients requiring lower

gastrointestinal endoscopy will usually have a 5-day bowel preparation consisting of semisolid or liquid diet, oral liquid paraffin 30 ml at night, bisacodyl (Dulcolax) tablets; 2 at night for 2 days. Patients on admission additionally have a daily enema saponis. During this period also, the patients are routinely screened for retroviral and hepatitis with their consent. When the patient is on the table , an intravenous line is set up and vital signs record kept by the nurses . The patients are usually sedated with intravenous diazepam and pentazocine. Patients for upper gastrointestinal endoscopy have additionally atropine and buscopan injections.

#### Results

In the 26 month period (3-10-2003 to 31-12-2006) we examined 55 patients. Their ages ranged from 19 to 85 years with a mean age of 54 years. The male: female ratio was 1.6: 1. Twenty-three gastroscopies, 18 sigmoidoscopies and 14 colonoscopies were performed. For the gastroscopies, the age range was from 30 to 85 years, with a mean of 56.4 years and a male: female ratio of 1.5:1. The sigmoidoscopies showed an age range of 33 to 78 years, a mean age of

51.6 years and a male: female ratio of 1.6:1. Colonoscopy records showed an age range of 19 to 72 years, a mean of 52.4 years and a male: female ratio of 2.5:1.

The outcomes of the various examinations are as follows:

Upper GI endoscopy: Carcinoma of the stomach (7), duodenitis (6), chronic duodenal ulcer (5), atrophic gastritis (2), achalasia (1), reflux esophagitis (1) and carcinoma of the first part of the duodenum (1). The patient with the achalasia had to be abandoned as she regurgitated almost 600ml of esophageal contents as soon as the scope was in her pharynx. Thankfully she did not aspirate the contents. A barium swallow done afterwards showed a grossly dilated esophagus with narrowing at the cardia.

Sigmoidoscopy: Hemorrhoids (6), rectal cancer (2), colon cancer (2), normal study (8) – the indications for these were suspected rectovaginal fistula post-radiotherapy in a patient with cervical cancer, fistula-in-ano, tenesmus, painful defecation, rectosigmoid mass, left iliac fossa mass, bleeding per rectum and 1 year follow-up after anterior resection for rectosigmoid cancer.

Colonoscopy: Carcinoma of the colon (4), post-excision of a malignant rectal polyp (1), colonic diverticulosis (1), nodular Kaposi sarcoma in transverse colon (1), hemorrhoids (1), ulcerative colitis (2) and 4 normal studies of which 3 were for constipation ?cause and 1 for a left flank mass. In one patient the scope could not traverse the hepatic flexure of the colon because of pain. In one patient the scope did not reach the caecum due to stenosis of the transverse colon form Kaposi sarcoma.

We did not record any acute complications in this study. Many of the patients complained about abdominal bloating and cramps after colonoscopy which were temporary. This was attributed to the distension of the bowel by the insufflated gas during the procedure.

### Discussion.

Gastroendoscopy may be done by the surgeons or physicians. The physicians commonly do a lot of upper gastrointestinal endoscopy<sup>3,4,5</sup> while the surgeons do more of the lower gastrointestinal

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tract<sup>6,7,8</sup>. We have encountered a some problems while beginning endoscopy in our setting

### Costs.

It is by our standard still very expensive as it costs N15, 000 (\$115) for upper GI endoscopy and is N17, 500 (\$135) for lower GI endoscopy. This has discouraged patients and our output is low. Population screening for colorectal cancer is not possible at this cost.

**Pathological Examination.** Many of our malignant appearing tissue have been reported to be free of cancer while indeed the disease is progressing. Our technique may be faulty and the forceps may be responsible as they are not sturdy enough to take deep bites. This experience has been noted by other colonoscopists who suggest that adequate care should be taken to obtain multiple biopsies from appropriate sites within the lesion observed<sup>6</sup>. We hope this may be our learning curve and we are working on it.

### Bowel preparation.

Occasionally we have to abandon the study because of impairment of the view by faeces. Repeat bowel preparations will was rewarding.

### Equipment.

When there is breakdown of equipment like a faulty monitor, we usually wait for long periods before such equipment are fixed or replaced. The added weight of the adaptor-head on the scopes reduces their ease of handling but this is still better than direct-viewing through the eyepiece and allows teaching of students.

### Training .

At present there are only 2 doctors performing the gastrointestinal endoscopies; a consultant gastroenterologist and a consultant gastrointestinal surgeon. The volume of work increases daily. It is desirably for more surgeons to develop interest and be trained in endoscopy to lighten the very heavy burden of our patients. Specialists nurses with interest in endoscopy should be trained and retained in endoscopy units to grow in their experience.

### . Utility.

From our limited experience we feel the full applications of endoscopy are yet to be achieved in our center ,but this is possible. We will continue to grow in experience and soon will start endoscopy in children.

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