

The Profile of Colonoscopy Results in Surabaya Hajj General Hospital

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ABSTRACT

Background: Colonoscopy is the most accurate examination to diagnose abnormalities in ileum terminalis, caecum, colon (ascendent, transversum and descendent), sigmoid and rectum at present time. The aim of this study was to obtain the profile of colonoscopy examination in Surabaya Hajj General hospital.

Method: One hundred and fifty patients who have undergone colonoscopy at Endoscopy Unit of Internal Medicine Department of Surabaya Hajj General hospital were observed from July 1, 2008 until October 30, 2009.

Result: There were 87 (58.0%) male and 63 (42.0%) female patients. Most subjects were at 51-70 years age group of 69 (46.0%) patients. The results of colonoscopy examination were as follows: hemorrhoid in 38 (25.3%) patients, colorectal cancer in 32 (21.3%) patients, colitis 25 (16.7%) patients, inflammatory bowel disease (IBD) in 15 (10.0%) patients, polyp in 8 (5.3%) patients, diverticulum in 5 (3.3%) patients, redundancy from colon in 5 (3.3%) patients, reduced peristaltic in 3 (2.0%) patients, the mass pressure from external colon in 2 (1.3%) patients, scybalia in 2 (1.33%) patients, adhesion in 3 (2.0%) patients, poor/dirty preparation in 6 (4.0%) patients and normal in 6 (4.0%) patients.

Conclusion: There were four major groups of disease found by colonoscopy in our subjects including hemorrhoid, colorectal cancer, colitis and IBD. Our study found that colorectal cancer has the greatest number, particularly the rectosigmoid cancer.

Keywords: colonoscopy, colitis, rectosigmoid, IBD, colorectal cancer

INTRODUCTION

Since the early 1970s, colonoscopy has increasingly played an important role in diagnosis and treatment of patients with diseases of the colon and rectum. Various indications for colonoscopy can be considered in two major categories of diagnostic and therapeutic or operative indications. Colonoscopy is the most accurate examination that can be done at present time. The evaluation covers the abnormalities at the area of caecum, ascending colon, transversal colon, descending colon and sigmoid. It provides views

of the presence of tumor, inflammatory bowel disease (IBD), colitis, vascular abnormalities (angiodysplasia, hemangioma), foreign bodies/worms and hemorrhoid.^{1,2,3,4,5}

Surabaya Hajj hospital is a B-type government educational hospital located in the centre of heterogeneous community. However, in reality, most patients who come for medical treatment and undergoing colonoscopy examination are the major group of Moslem community. Evaluation of lower gastrointestinal tracts in Surabaya Hajj hospital was intended to determine the profile of colonoscopy examination results.

METHOD

This study was a retrospective study that include all patients who underwent colonoscopy in the period

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of study, commencing from July 1st, 2008 to October 30th, 2009 in Surabaya Hajj General hospital.

From the status examination, it is obtained the results of medical examination classified according to age, sex, and indication for colonoscopy. The colonoscopy results of all data were descriptively reported.^{3,5} Considering that our study is a retrospective study, the inclusion criteria were: patients who had given their consent by signing the informed consent form, aged more than 13 years old and had indications for colonoscopy including unexplained gastrointestinal symptoms and signs (with normal barium enema), unexplained rectal bleeding, non-diagnostic radiographic examination, polyp and cancer follow-up, IBD, stricture or colonic narrowing (with and without IBD), diverticular disease, infectious colitis, radiation colitis, ischemic colitis, pneumatosis cystoides intestinalis, evaluation of experimental colitis.² Exclusion criteria were patients with unclear results and incomplete data.

RESULTS

There were 150 eligible patients in our study during the study period commencing from July 1, 2008 to October 30, 2008 in Surabaya Hajj hospital. It included 87 (58.0%) male and 63 (42.0%) female patients with the ages ranging from 31 to 70 years. Most subjects were at 51- 70 years age group of 69 (46%) patients.

Indication for colonoscopy in our study were hematochezia in 74 (49.3%) patients, suspected colorectal cancer in 27 (18%) patients, obstipation in 22 (14.7%) patients, chronic diarrhea in 14 (9.3%) patients, mucus excrement in 7 (4.7%) patients, abdominal pain of unknown cause in 4 (2.7%) patients, post carcinoma resection evaluation on colon in 1 (0.6%) patients, occult bleeding stool in 1 (0.7%) patient.

The technique of colonoscopy was evaluated. We found that some patients had colonoscopy that reached the caecum; while other had not. Such evaluation was intended to recognize the level of technical difficulty in colonoscopy.

Table 1 indicates the result of colonoscopy examination from July 1, 2008 until October 30, 2009 and 4 big groups are found as follows: hemorrhoid, colorectal cancer, colitis and IBD.

The result of colonoscopy which revealed colorectal cancer were found in 32 (21.3%) patients, consisting of 17 (11.3%) male and 15 (10%) female (table 2). Our study found that there was greater number of male subjects than female who had colorectal cancer. Moreover, the cancers were located in different places compared to those found in literature/overseas.²

Table 1. Results of colonoscopy examination

Diagnosis by colonoscopy	n (%)
Hemorrhoid	38 (25.3%)
Colorectal cancer	32 (21.3%)
Colitis	25 (16.7%)
Inflammatory bowel disease	15 (10.0%)
Polyp	8 (5.3%)
Diverticulum	5 (3.3%)
Redundancy of the colon	5 (3.3%)
Reduced peristaltic	3 (2.0%)
Adhesion	3 (2.0%)
Scybala	2 (1.3%)
Mass pressure from external colon	2 (1.3%)
Other (non-cooperative patients, poor dirty preparation)	6 (4.0%)
Normal	6 (4.0%)

Table 2 also demonstrates that colorectal cancer was observed at young ages starting from 21 years and the number increased further by the age of 41 years. Our study also found that the most frequent type of colorectal cancer was rectosigmoid cancer which was followed by minor number of ascending colon and caecum cancer.

Table 2. Number of patients with colorectal cancer based on sex, age groups and cancer site

Characteristic	n (%)
Sex	
Male	17 (11.3%)
Female	15 (10%)
Age (year)	
10 – 20	-
21 – 40	4 (2.7%)
41 – 60	14 (9.3%)
> 61	14 (9.3%)
Cancer site	
Rectosigmoid	30 (20.0%)
Colon ascending	1 (0.7%)
Caecum	1 (0.7%)

DISCUSSION

Result of studies conducted at the Division of Gastroenterology, Department of Internal Medicine Cipto Mangunkusumo hospital during 2003-2007 revealed four most common indications for colonoscopy, namely hematochezia (30.2%), chronic diarrhea (18.2%), abdominal pain (11.5%), and constipation (9.9%). Four most common endoscopic findings were hemorrhoid (78.8%), colitis (26.3%), IBD (12.8%), and colorectal cancer (11.7%). The studies indicated that was greater number of male patients (57.4%) than female.

This study revealed 4 most frequent indication for colonoscopy, namely hematochezia in 74 (49.3%)

patients, mass suspect of ultrasonographic/CT-scan examination in 27 (18.0%) patients, obstipation in 22 (14.7%) patients and chronic diarrhea in 14 (9.3%) patients. The number of patients who underwent colonoscopy was 87 (58.0%) male subject, which shows greater number compare 63 (42.0%) female.

The four groups of the results of colonoscopy examination are hemorrhoid, colorectal cancer, colitis and IBD patients. The results of colonoscopy examination reveal the 4 big groups found in either Subaraya Hajj hospital or in Cipto Mangunkusumo hospital, Jakarta. But the incidence of colorectal cancer in Surabaya Hajj hospital 32 (21.3%) is higher compare with the incidence in Cipto Mangunkusumo hospital 11.7%.

The incident of colorectal cancer increases since the age of 40 years and it increases twice as much on every 10-year increase.^{6,7} In our study, the colorectal cancer was categorized based on age groups of 10-20, 21-40, 41-60, > 60 years which was respectively found in 0 (0%), 4 (2.6%), 14 (9.3%) and 14 (9.3%) subjects. A little increase was found in the number of subjects starting from the age group of 21-40 years, whereas a sufficiently high increase occurred in the age group of 41-60 and > 60 years. Rankin et al, suggest 4.1% of the prevalence of colorectal cancer.⁸ Most colorectal cancer (76%) is located at the area, followed ny ascending colon and caecum as obtained in 30 (20.0%), 1 (0.7%) and 1 (0.7%) patient(s) respectively.

IBD is more frequently found in female patients than male, which uccurs strating from age group of 15-25 years and it increases at the age group of 55-65 years.^{5,9,10} Colonoscopy in our study revealed IBD in 15 (10.0%) patients, including 8 (5.3%) male patients and 7 (4.7%) female patients. Our study also revealed IBD at the age groups of 10-20, 21-40, 41-60 and > 61 years respectively in 0 (0%), 4 (2.7%), 5 (3.3%) and on 6 (4.0%) patients. A little increase of amount is found on the patients of the age group of 20-40, 41-60 and > 60 years. Our research and the literature indicate the incident of IBD occuring at the same age and its increase is found at more or less the same age.

Of 150 patients who underwent colonoscopy in our study, there were 120 (80.0%) patients who had colonoscopy reaching caecum; while the colonoscopy in the other 30 (20.0%) patients did not reach caecum. There are three causes that may explain why the colocoscope could not reach the caecum, i.e. there were tumor covering lumen in 16 (10.7%) patients, poor

or dirty preparation in 7 (4.7%) patients, mass pressure outside colon and non-cooperative patients each in 2 (1.33%) patients.

Most patients who underwent the colonoscopy examination are from low class health insurance and community health insurance for the poors.

CONCLUSION

Four most frequent indications for colonoscopy are found, namely hematochezia, suspected tumor by ultrasonographic/CT scan, obstipation and chronic diarrhea. There are four common findings by colonoscopy including hemorrhoid, colorectal cancer, colitis and IBD.

In colonoscopy examination, most patients had their colonoscopy reached caecum and only some of them had not. Colorectal cancer is the second greatest finding of colonoscopy examinations in our study, especially the rectosigmoid cancer. Most cancer found in our study covered the lumen of gastrointestinal tract and blocked the endoscope to reach the caecum.

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