Retrospective study of the colonoscopic examination of patients presented to the Gastrointestinal Endoscopy Unit of Kasr El-Aini Hospital.

Thesis

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List of abbreviations

AAPC	Attenuated adenomatous polyposis coli
ACG	American College of Gastroenterology
ACS-MSTF	American Cancer Society- Multi-Society Task Force
AJCC	American Joint Committee on Cancer
ANCA	Antineutrophil cytoplasmic antibodies
APC	Adenomatosis polyposis coli
ASA	American Society of Anesthesiologists
ASCA	Anti-Saccharomyces cerevisiae antibodies
ASGE	American Society of Gastrointestinal Endoscopy
AVM	Arteriovenous Malformation
CCDs	Charge Coupled Devices
CD	Crohn's disease
CEA	Carcinoembrionic antigen
CRC	Colorectal carcinoma
CT	Computed Tomography
CTC	Computed tomographic colonography
DCBE	Double-contrast barium enema
EGD	Esophagogastroduodenoscopy
ERCP	Endoscopic Retrograde Cholangiopancreatography
EUS	Endoscopic Ultrasonography
FAP	Familial adenomatous polyposis
FIT	Fecal immunochemical test
FJP	Familial juvenile polyposis
FOBT	Fecal occult blood tests

GGT	Gama Glutamyl Transferase
GI	Gastrointestinal
HNPCC	Hereditary Non-Polyposis Colorectal Cancer
HPS	Hyperplastic polyposis syndrome
IBD	Inflammatory bowel disease
IFN	Interferon
IL	Interleukin
LGIB	Lower gastrointestinal bleeding
MMR	Mismatch repair
MRI	Magnetic Resonance Imaging
NBI	Narrow Band Imaging
NG	Nasogastric
NSAIDs	Nonsteroidal Anti inflammatory Drugs
PET	Positron emission tomography
PJS	Peutz-Jeghers syndrome
RLQ	Right Lower Quadrant
TIPS	Transarterial intrahepatic potosystemic shunt
TNF	Tumour necrosis factor
UC	Ulcerative colitis
US	Ultrasound
WHO	World health organization

Abstract

Aim: The aim of this retrospective study is to analyze the colonoscopic findings and to identify the yield of the major indications for colonoscopy and the pattern of colorectal diseases in our community.

Patients and Methods: A retrospective study conducted during the period from May **2004** to December **2007** to analyze the colonoscopic findings of patients presented with lower gastrointestinal manifestations to the Gastrointestinal Endoscopy Unit of Kasr El-Aini Hospital. It included 3698 cases, 2129 were males (57.6%) and 1569 females (42.4%). Their ages ranged from 1 to 90 years with a mean age of 40.9. Of whom 90% aged above 18 years. Complete examination up to the cecum or terminal ileum was possible in 2331cases (63.5%).

Results: Bleeding per rectum was the commonest presentation representing 47.6%, followed by constipation (14.6%), abdominal pain (12.6%) and diarrhea (9.5%). Pathological findings were identified in 2054 patients (55.5%). Polyps, colitis, ulcers, piles and mass were the commonest findings followed by angiodysplasia, diverticulosis and stricture. The highest diagnostic yield was found in patients presented by bleeding per rectum (65%) followed by anaemia (55%), follow up of malignancy (51%), constipation and screening for malignancy (45%) for each, abdominal pain (43%) and diarrhea (42%).

Conclusion: Colonic diseases are not uncommon in our part of the world. Colonoscopy is a rewarding procedure in those patients referred with lower gastrointestinal manifestations.

Key words: Colonoscopy, diagnostic yield, abdominal pain, bleeding per rectum, diarrhea, anemia, polyps, mass, colitis.

Introduction

By the turn of the millennium, colonoscopy had emerged as the first line imaging investigation of the colon. The procedure is more sensitive than radiological imaging and offers a range of therapeutic options. The procedure is often painful for the patient. Over sedation, perforation, bleeding and procedure related death remain much feared complications ***(Bowles et al, 2004)***.

Experienced endoscopists are able to reach the cecum in more than 90% of all cases. When complicating factors are controlled intubation rate of 98% can be achieved however, both time and success rate to reach the cecum are depending on the endoscopist's expertise ***(Harewood, 2005)***.

Colorectal lesions are classified as neoplastic and non neoplastic and endoscopically, classified as polypoid or nonpolypoid, the polypoid type consists of the pedunculated or semipedunculated and sessile morphology. The nonpolypoid type is composed of slightly elevated, completely flat, and slightly depressed lesions ***(Matsui et al, 2000)***.

Cancer, adenomatous polyp, inflammatory bowel disease, and angiodysplasia were considered relevant endoscopic findings, as were less-common conditions such as non-neoplastic stenosis, ischemic colitis, and pseudomembranous colitis ***(Morini et al, 2001)***.

Colorectal lesions could be diagnosed by colonoscopy, proctoscopy, sigmoidoscopy, barium enema, double-contrast studies, plain abdominal radiography, ultrasonography, endo-anal ultrasonography, virtual colonoscopy, CT scan, MRI and blood cell scans- radiolabelled WBC scans using inditum-111 or technetium-99. Colonoscopy is the most important investigation, because it examines the

entire colon and has both diagnostic and therapeutic capabilities ***(Brain, 2007)***.

In a study done by ***Zakaria et al (2001)*** on **1500** Egyptiens subjected to colonoscopy, 25.1% showed inflammatory and ulcerative colonic lesions presented mainly by bloody diarhea and less commonly by abdominal pain and rectal prolapse. Colorectal polyps were detected in 19.7% commonly presented by bloody diarhea and less commonly by abdominal pain, constipation and anaemia. Colonic mass was detected in 10.2% commonly presented by blood diarhea and less commonly by abdominal mass, weight loss or occult blood in stool. Colonic divericulosis was detected in 3% of cases mostly presented by bloody diarhoea, constipation and abdominal pain. Normal colonic mucosa was found in 25% of cases, bleeding per rectum was the commonest clinical presentation followed by chronic diarhea, abdominal pain and constipation. Primary piles was detected in 17%, angiodysplasia in 0.73% of cases.

According to the year **2000** guidelines of the American Society of Gastrointestinal Endoscopy (ASGI) there are several established indications for colonoscopy: they include evaluation of abnormalities on barium enema or other imaging studies, evaluation of unexplained gastrointestinal bleeding or iron deficiency anemia., screening and surveillance of colonic neoplasia, chronic inflammatory bowel disease and significant diarrhea of unexplained origin. Other therapeutic indications include interventions like hemostasis, polypectomy, foreign body removal, ballon dilation and palliative treatment of neoplasms, among others ***(H"afner, 2007)***.

Colonoscopic surveillance is recommended for patients with adenomas because the risks of new (metachronous) adenomas and colorectal cancer among these patients are greater than they are among persons without adenomas ***(Winawer et al, 2003)***.

Aim of the study

The aim of this work is to analyze the colonoscopic findings of patients presented with lower gastrointestinal symptoms to the Gastrointestinal Endoscopy Unit of Kasr El-Aini Hospital during the period from May **2004** to December **2007**.