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Evaluatiion of colonoscopy treatments, assess patient features, typical symptoms, colonoscopic results, and histopathological findings

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ABSTRACT

Aim: One helpful diagnostic technique for assessing the lower gastrointestinal tract is a colonoscopy. Through evaluating colonoscopy operations, the authors of the study objective were to assess patient characteristics, will often, colonoscopy results, and histopathological results.

Methods: This one-year (June 2021–May 2022) prospective research was carried out at the Mayo Hospital in Lahore, Pakistan. Institutional review committee approval for ethical use was obtained. The data were extracted using a census sample technique. 349 colonoscopies over the last year were examined.

Results: The study's participants were 49.78+/-18.37 years old on average. The ratio of men to women was 1.39:2. The leading cause of colonoscopy was abdominal discomfort with mucus in the stool, which was reported by 26.4% of individuals, followed by rectal bleeding, which was reported by 22.4% of patients. In addition to a normal colonoscopy, hemorrhoids in 21.2 percent of patients and inflammatory or ulcerative lesions in 18.7 percent of people have been the most frequent results. 7.49 percent of patients had colorectal malignancy. 119 individuals had colonoscopy biopsies. In 12.7%, 7.9%, and 7.6% of the patients in the whole trial, respectively, the results of the biopsy revealed ulcerative colitis, adenomatous polyps, and adenocarcinomas. Men were very often impacted by colorectal cancer than females, and moderately differentiated carcinoma was far more frequently diagnosed in younger age groups.

Conclusion: In 26.4 percent of patients, abdominal discomfort and mucus in the stool were reasons for colonoscopy. Hemorrhoids in 21.2 percent of patients and inflammatory or ulcerative lesions in 18.7 percent of patients were the most frequent results. 7.49 percent of patients had colorectal cancer. The most frequent biopsy results were adenocarcinoma in 7.6 percent of participants overall, adenomatous polyp in 7.9 percent, and ulcerative colitis in 13.8 percent of patients. Men than females were more often diagnosed with colorectal cancer.

Keywords: General Medicine, lower gastrointestinal, colonoscopy.

INTRODUCTION:

Due to advancements in the fiberoptic colonoscopy and multi-slice Computed Tomography scans, the analysis of individuals having big bowel diseases has significantly improved over the last few years [1]. The percentage of individuals having lower digestive problems, iron shortage anemia, abnormal radiographic results of colon, altered bowel habits, recognized polyps, also analysis in addition electronic eavesdropping of inflammatory bowel disease will benefit from colonoscopy as their testing is a technical instrument to assess the large bowel [2]. An endoscope is the therapeutic method that aids in the treatment

of colonic blockage, hemostasis, and polypectomy using endoscopic balloon dilation or endoscopic colonic stent [3]. Additionally, colonoscopy is regarded as the gold standard for the earlier detection of colorectal and colonic polyps [4]. Therefore, by evaluating colonoscopy operations carried out within a year in the endoscopy section of the tertiary Mayo Hospital, Lahore, Pakistan, we wanted to analyze patient characteristics, common symptoms, endoscopy results, and histopathological data [5].

METHDOLOGY:

This one-year (June 2021–May 2022) retroactive research was carried out at the Mayo Hospital in Lahore, Pakistan. Academic review committee approval for ethical use was obtained. The data were retrieved using a census sample technique. The endoscopic record register was used to recover multiple criteria, complaints, length of time they persisted, and findings. The pathology department record file was used to retrieve the histology results of patients whose biopsy samples were collected. Additionally, any unfavorable outcomes following colonoscopy, such as blood or perforation, have been documented. Excluded from the study were anyone whose colonoscopy was not performed because of inadequate intestinal preparations or individual intolerance. The research eliminated children under age of 14 and those whose colonoscopy was performed under anesthesia. Additionally, the research eliminated colonoscopies when a biopsy was performed but the biopsy report was not accessible. The day before their colonoscopies, every patient was placed on a liquid diet. On the afternoon of the colonoscopy, bowel implementation is carried out by consuming 1 packet of polyethylene glycol in 2 liters of water, following through 1-2 liters of oral rehydration solution (ORS). Prior to the colonoscopy, pain was treated through Inj. BUTRIM 2 mg intramuscular in addition 20 mg buscopan intravenously. Utilizing a saturating probe, the heart rate and oxygen saturation were tracked during the process. The SPSS data program version 25.0 was used to input the collected data. Continuous variables remained defined by means of average having SD or median through IQR, while attribute values have been described using frequencies and percentages and shown that used the relevant graphs or charts for descriptive and inferential statistics. In statistical techniques, the correlation here among dependent also independent variables was examined at a 96% level of certainty using non-parametric tests similar the chi-square trial or Fischer's careful test: P 0.06 remained utilized to establish impacts of high.

RESULTS:

The study's conclusions are displayed in tables 1 and 2. The authors of the study participants ranged in age from 16 to 94, with a mean age of 49.78+/-18.36 years. The leading cause of colonoscopy was abdominal discomfort accompanied mucus in the stool, which was reported by 26.4% of participants, following by rectal bleeding, which was reported by 22.5% of patients. In 45.6 percent of people, ileal intubation was successful. 38 percent of individuals had normal colonoscopies. Other than a normal colonoscopy, hemorrhoids in 21.2 percent of patients and inflammatory or ulcerative lesions in 19.8 percent of people were the most frequent results. 7.49 percent of patients had colorectal cancer. The sole side effect seen was colorectal bleeding in 2.86 percent (n=7) of participants, and it too was attributable to colorectal biopsy and was mild. Abdominal pain was not included as a research variable. In 118 individuals, colonoscopy biopsies were performed. The most frequent biopsy results were adenocarcinoma in 7.6 percent of patients overall, adenomatous polyp in 7.9 percent, and ulcerative colitis in 13.8 percent of patients. Well-differentiated adenocarcinoma, which was present in 58.15 percent of colorectal carcinomas, was by far the most prevalent tumor grade. We can observe from table 2 that younger age groups were more likely to have moderately differentiated carcinoma, while older age groups were more likely and have well distinguished carcinoma. Colorectal cancer remained extra prevalent in age set >42 years, which was scientifically significant with a p-value of 0.037. Ulcerative

colitis was strongly associated with age less than or equivalent to 42 years (p-value 0.0002). It remained statistical significance (p=0.04) that men were more likely than women to get colorectal cancer.

Table 1:

Characteristics	
Age Range	36.5
Age	11.5
Female	0.5
Male	98.3
Bleeding per rectum	33.6
Pain abdomen through mucus	19.2
Alterd bowel habits	68.3
Pain abdomen having altered bowel	16.8
Evaluation of anemia	87.2
Constipation	23.8
Not done	17.8
Painful defecation	81.7

Table 2:

Colonoscopy findings	
Haemorrhoids	21.2
Normal	38
Multiple colonic polyps	18.7
Colorectal polyps	8.2
Carcinoma ascending	2.6
Recto-sigmoid mass	5.4
Ileo-caecal tuberculosis	2.3
Angiodysplasia colon	1.8
Lingering fissure in ano	3.6
Radiation persuaded proctitis	3.3
Not required	3.3
Rectal ulcer	3.1

DISCUSSION:

Recognizing symbols and indications of lower gastrointestinal diseases, a diagnostic colonoscopy is advised for investigation. Lower gastrointestinal hemorrhage, anemia, unexplained variations in bowel habits, polyps, and ulcerative colitis are frequent indications that need a colonoscopy to investigate and diagnose. The study population's mean age in this research was 49.78+/-18.36 years [6]. 51.93 percent (n=169) of the individuals were in the 42–71 age range. 1.38:1 man to women were present (59 percent males and 41 percent females). The patients in related Pakistani research by Baandee et al. had a mean age of 48.11 years, with males predominating (54.49%), and the M:F ratio was 1.17:2 [7]. In the current research, abdominal discomfort (through or without changed bowel habits, mucus, blood in the stool, also weight loss) was the most prevalent reason for a colonoscopy (53.9%), following by per rectal bleeding (22.4%), disturbed bowel habits (8.6%), and constipated (6.8%) in participants [8]. According to research by Barehanded et al., stomach discomfort (42.3 percent), rectal bleeding (32.9 percent), and constipation (9.14 percent) were the most frequent reasons for colonoscopy. In the current investigation, 38% of colonoscopies were found to be normal. Abnormal colonoscopy varied from 26.69 percent to 48.7 percent in several studies on colonoscopy conducted by Baandee et al., HN Dinesh et al., also Celebes et al. The majority of patients in the research had hemorrhoid (21.2%), followed by individuals with inflammatory or ulcerative lesions (18.7%), colonic polyps (9.7%), and patients with colorectal cancer (7.49%). 3.3 percent of patients had ileo-caeca TB. According to histology, ulcerative colitis affected 13.8% of individuals, whereas non-specific colitis affected 5.8% [9]. In retrospective research by Dinesh HN et al. from India, they examined 590 individuals and discovered that 24 percent of them had hemorrhoids, 13 percent had non-specific colitis, 11 percent had ileo-caeca TB, 16 percent had colonic polyps, and 8 percent had colorectal cancer. Similar results were reported in research by Chaudhary S et al., from Nepal, who discovered colonic polyps in 7.68 percent of patients, ulcerative colitis in 11% of cases, and colorectal cancer in 9.34 percent [10].

CONCLUSION:

This historical investigation has led to the conclusion that colonoscopy remains very good diagnostic instrument for individuals having lower gastrointestinal tract discomfort, mucus in the stools, and rectal bleeding. Colonoscopy combined without biopsy aids in identifying individuals who have inflammatory or malignant lesions and enables prehospital therapy. Several individuals had to be turned away since they could not really handle the agony because we lacked the equipment to do colonoscopies while sedated. Additionally, since there were numerous consultants doing the colonoscopy, there may have been observer bias and prejudice in the choice to conduct a biopsy.

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