

## Incidence of Inflammatory Bowel Diseases among Patients Referred for Colonoscopy in Al-Kadhimiya Teaching Hospital

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Article Received: 02-May-2023, Revised: 19-May-2023, Accepted: 09-June-2023

### **ABSTRACT:**

**Background:** Colonoscopy is recommended by many international gastroenterology and cancer societies as the initial diagnostic modality for colorectal cancer. It is considered the most accurate diagnostic tool in inflammatory bowel disease. Inflammatory bowel disease (IBD) is a chronic relapsing and remitting inflammatory disorder of the gastrointestinal tract. There are two identified subtypes of the disease, ulcerative colitis (UC) and Crohn's disease. **Patients and Methods:** Cross sectional study involved 53 patients who underwent colonoscopy in Al-Kadhimiya Teaching Hospital's endoscopy unit in the period from November 2022 to February 2023, the presenting complaint was recorded as well as the results of colonoscopy. **Results:** Bleeding per rectum was the commonest indication for colonoscopy (43.4%) followed by chronic constipation (18.8%), then Chronic abdominal pain (16.9%). The commonest pathologies were internal piles 18.8% followed by Polyp and colorectal cancer 15.1%, IBD 11.3%, Non-specific colitis 7.5% then anal fissure and Diverticulosis 3.7%. **Conclusion:** the incidence of inflammatory bowel disease was calculated to be 11.3%. the most frequent diagnosis in Al-Kadhimiya Teaching Hospital colonoscopy unit were internal piles, followed by polyp and colorectal cancer.

**Keywords:** *Ulcerative colitis , Crohn's disease, Iraq, Colonoscopy*

### **INTRODUCTION:**

Inflammatory bowel disease (IBD) is a chronic relapsing and remitting inflammatory disorder of the gastrointestinal tract. Ulcerative colitis (UC) and Crohn disease (CD) are common phenotypes of IBD [1]. Ulcerative colitis is a chronic inflammatory condition characterized by relapsing and remitting episodes of inflammation limited to the mucosal layer of the colon. It almost invariably involves the rectum, and the extent often involves more proximal portions of the colon in a continuous fashion [1]. Crohn disease is characterized by transmural inflammation and by skip areas of involvement .The transmural inflammatory nature of Crohn disease may lead to fibrosis and strictures Transmural inflammation may also result in sinus tracts, giving rise to micro-perforations and fistula formation [2].

The incidence and prevalence of inflammatory bowel diseases has increased in the past 50 years in the Western countries , up to 814/100,000 and 120–200/100,000 persons , respectively, for ulcerative colitis (UC) but 6–15/100,000 and 50–200/100,000 persons, respectively, for Crohn's disease (CD) [3].The incidence in the Mediterranean countries is about 5/100,000 person[4]. The age of onset for many patients with ulcerative colitis and Crohn disease is between 15 and 30 years, although IBD can present at any age[2].

### **AIM OF THE STUDY:**

This study was conducted to calculate the incidence of IBD among patients referred to endoscopy units in Al-Kadhimiya Teaching Hospital, to perform colonoscopy and evaluate the most common presenting symptoms of inflammatory bowel disease.

## **PAPTEINTS AND MTHODS:**

This cross sectional observational study was carried out in Al-Kadhimiya Teaching Hospital's endoscopy unit from November 2022 to February 2023 for patients referred for various lower GIT symptoms. Patients were selected from different age groups, and from both sexes and from different geographical residences without any bias in selection.

Fifty three patients were enrolled in this study where history was taken from all of them and focusing on the following parameters:

1. Age
2. Sex
3. The main presentation and duration focusing mainly on symptoms suggestive of inflammatory bowel disease (bleeding per rectum, chronic diarrhea, and tenesmus)

Some patients were ill prepared so they were excluded from the study. The first step is usually a digital rectal examination, to detect anal stricture or any rectal mass and to determine if preparation has been inadequate. The endoscope is then passed through the anus up the rectum, the colon (sigmoid, descending, transverse and ascending colon, the cecum), and ultimately the terminal ileum. Multiple biopsies were taken from pathologic

lesion for histopathology. Patients were divided into two groups according to colonoscopy and pathological examination of their biopsies:

- Group I: included 47 patients without IBD.
- Group II: included 6 patients diagnosed with IBD.

## **RESULTS:**

Table (1) shows the distribution of demographic data among all patients of the study and reveals that female represented 60.3% of the samples.

Table (2) shows that bleeding per rectum was the most common presenting symptom among all patients admitted to colonoscopy followed by chronic constipation.

Table (3) shows that the most common diagnosis was internal piles 18% followed by colorectal cancer and Polyposis in 15 % and in 24% of cases the colonoscopy examination was normal. IBD was evident in 11.3% of cases.

Table (4) shows that with comparison between the IBD patients and other patients showed that they were significantly younger. In table (5), we found that the most common presenting symptom among IBD patients was bleeding per rectum followed by chronic diarrhea.

**Table (1): Demographic data of the studied group**

<b>Age</b>	<b>Mean</b>	43.84906 + 18.52	
	<b>Median</b>	41	
		<b>Frequency</b>	<b>Percentage</b>
<b>Sex</b>	<b>Female</b>	32	60.37
	<b>Male</b>	21	39.63

**Table (2): The main presenting symptoms that were reported by the patients of the studied group**

<b>Main presenting symptom</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Bleeding per rectum</b>	23	43.4
<b>Chronic abdominal pain</b>	9	16.98
<b>Chronic diarrhea</b>	8	15
<b>Chronic constipation</b>	10	18.86
<b>Weight loss</b>	7	13.2
<b>Anemia</b>	2	3.7

**Table (3): The distribution of final diagnosis after colonoscopy and pathological examination among patients of studied group**

Diagnosis	Frequency	Percentage
Colorectal cancer	8	15.1
Polyposis	8	15.1
Internal piles	10	18.8
IBD	6	11.3
Non-specific colitis	4	7.5
Anal fissure	2	3.7
normal colonoscopy	13	24.5
Diverticulosis	2	3.7

**Table (4): show Comparison between group I and group II as regards demographic data**

		Group I (N=47)	Group II (N=6)	P
Age	Mean	44.15 ± 18.73	31.66 ± 5.65	0.0024
Sex	Female	29	3	0.16
	Male	18	3	

**Table (5): show the main presenting symptoms that were reported by the patients with inflammatory bowel disease**

Main presenting symptom	Frequency	Percentage
Bleeding per rectum	5	83.3
Chronic abdominal pain	2	33.3
Chronic diarrhea	3	50
Chronic constipation	1	16.67
Weight loss	2	33.3

## **DISCUSSION:**

Colonoscopic procedure is an accepted modality for evaluation of colonic disease, the demand for colonoscopy has been increasing over years, with the decline in complications rate associated with the procedure. Colonoscopy may be carried out for a variety of reasons such as to investigate the cause of gastrointestinal hemorrhage, abdominal pain, unexplained changes in bowel habit, suspicious of malignancy or an abnormality found in ultrasound, individuals with a previous history of polyps, colonic cancer and those with a family history of colonic cancer may also undergo periodic colonoscopies. We conducted this study to determine the incidence and clinical characteristics of IBD in all patients who done colonoscopy at Al-Kadhimiya Teaching Hospital's endoscopy unit in the period from November 2022 to February 2023. Bleeding per rectum was the most

common presenting complaint for colonoscopy in 23 patients (43.4%) followed by chronic constipation in 10 patients (18.86), chronic abdominal pain in 9 patients (16.98) and chronic diarrhea in 8 patients (15%). These results agree with another study that revealed bleeding per rectum and abdominal pain are common problems that prompt patients to seek medical help and rectal bleeding is an early sign for many gastrointestinal disorders including colorectal cancer and inflammatory bowel disease [17].

In this study, the incidence of IBD was 11.3% (6 cases from a total of 53 colonoscopies). In comparison with other studies done in Lebanon and Nepal, the incidence of IBD was 2.7% (67 cases from a total of 2481 colonoscopies) and 6.3% (479 cases from a total of 7526 colonoscopies) respectively [18,19]. This difference in incidence could be explained by differences in sample size or may be due to geographical variation. In our

study, the commonest pathologies seen at colonoscopy were Internal piles 18.8% followed by Polyp and colorectal cancer 15.1%. Another study reported that the commonest pathologies found at colonoscopy were cancer colon followed by diverticulosis and polyps [20]. Patients with IBD in our study were significantly younger than seen in the percentage encountered in non-IBD patients, this agree with Ehab et al. [17] whose study find the mean presenting age is 35±11. This agrees with Tozun et al. [21] who said that most patients are diagnosed between age of 20 to 40 years.

### **CONCLUSION:**

In our cohort of Iraqi patients subjected to colonoscopy, the incidence of IBD was calculated to equal 11.3% and higher occurrence in young patients. The most frequent diagnoses were internal hemorrhoids, Polyps followed by colorectal cancer. The most common complaint among IBD were bleeding per rectum followed by chronic diarrhea then chronic abdominal pain and weight loss.

### **Recommendation:**

- Patients with IBD should have regular follow up to ensure adequate treatment compliance, adequacy of treatment regimen and to offer psychological support.
- Patients with IBD should be advised to avoid precipitating factors like stress, smoking in Crohn's disease and certain medications.
- Patients with IBD should have regular colonoscopy screening to detect early neoplastic changes

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**How to Cite:**

Dr. Jalal Nama Abduljaleel, Dr. Bashar A. Abdulhassan, & Dr. Sinan Shawkat Hamid. (2023). Incidence of Inflammatory Bowel Diseases among Patients Referred for Colonoscopy in Al-Kadhimiya Teaching Hospital. *International Journal of Medical Science in Clinical Research and Review*, 6(03), Page: 632–636. Retrieved from

<https://ijmscrr.in/index.php/ijmscrr/article/view/554>

<http://doi.org/10.5281/zenodo.8022142>

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