

# Irritable Bowel Syndrome: Frequency and Epidemiological Profile through 4530 Ileo-Colonoscopies

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## Abstract

**Introduction:** The clinical manifestations of irritable bowel syndrome are not specific. Irritable bowel syndrome (IBS) is a common condition that affects the digestive system. It is usually a lifelong problem. The diagnosis is retained after elimination of an organic cause at colonoscopy. The main objective of this study is to determine the frequency of these disorders and to study the epidemiological characteristics of these patients. **Patients and Methods:** From January 2016 to January 2022, were included all patients with symptoms of IBS (abdominal pain, transit disorder, abdominal bloating) referred to our department for ileocolonoscopy. Patients with warning signs (rectal bleeding, melena, anemia, altered deterioration of the general condition) or with incomplete colonoscopy were excluded. The diagnosis of IBS was retained in patients with a normal total ileo-colonoscopy. All colonoscopies were done under propofol sedation and all patients were prepared with Polyethylene Glycol (PEG). **Results:** Of 4530 ileo-colonoscopies performed, 1132 (25%) were indicated for symptoms of IBS without warning signs. The average age of the patients was 47 years (16-89 years), the age group of 40-65 years predominated in 41%. 66.7% were female. The frequency of symptoms was as follows: abdominal pain in 64.3% of cases, chronic diarrhea: 33%, and constipation: 30.7%, alternating diarrhea-constipation: 18.1% and abdominal bloating in 10.75%. 569 patients (50.2%) had a normal ileo-colonoscopy. Ileo-colonoscopy was abnormal in 49.8% of cases: polyps: 47%, diverticula: 19%, congestive or ulcerative colonic and/or ileal mucosa: 18.8%, tumour: 7%, lipoma: 4.7% and colonic melanosis: 3.5%. Tumors were primarily in patients > 40 years old (9%), and IBD lesions in patients < 40 years old (11%). **Conclusion:** Ileo-colonoscopy remains essential to eliminate an organic cause even in the presence of typical symptoms of IBS. Indeed, half of our patients with symptoms of IBS without warning signs have an organic lesion dominated by tumors primarily in those > 40 years old and IBD lesions in those < 40 years old.

**Keywords:** Irritable bowel syndrome (IBS), digestive system, Epidemiological Profile, Ileo-colonoscopy.

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## INTRODUCTION

Functional digestive diseases are the most frequently disease in gastroenterology. Indeed, they represent about 40% of the reasons for consultation with the gastroenterologist. Traditionally, functional digestive diseases have been defined as symptomatic diseases without underlying organic alteration and without infection or associated metabolic disorder. The Rome IV working group classified functional digestive diseases according to the different segments of the digestive tract suspected of being the cause of the symptoms. According to this distribution, one can discriminate between functional oesophageal, gastroduodenal, intestinal, anorectal, gallbladder and sphincter of Oddi muscle diseases. The main functional bowel disease is irritable bowel syndrome (IBS). There

are different types of IBS, namely: constipation-predominant IBS, diarrhea-predominant IBS, mixed IBS and unclassified IBS. The prevalence of IBS in Europe and North America ranges from 10-15% [1]. In Africa, studies on functional bowel disorders (FID) are fragmentary and partial, however some studies conducted in Benin, Morocco and Mali reveal a frequency of FID of 14%, 13% and 21% respectively [2-4]; TFIs represent a public health problem because they cause serious discomfort in the performance of professional and social activities. The aim of this study are to determine the frequency of these disorders and to study the epidemiological characteristics of these patients.

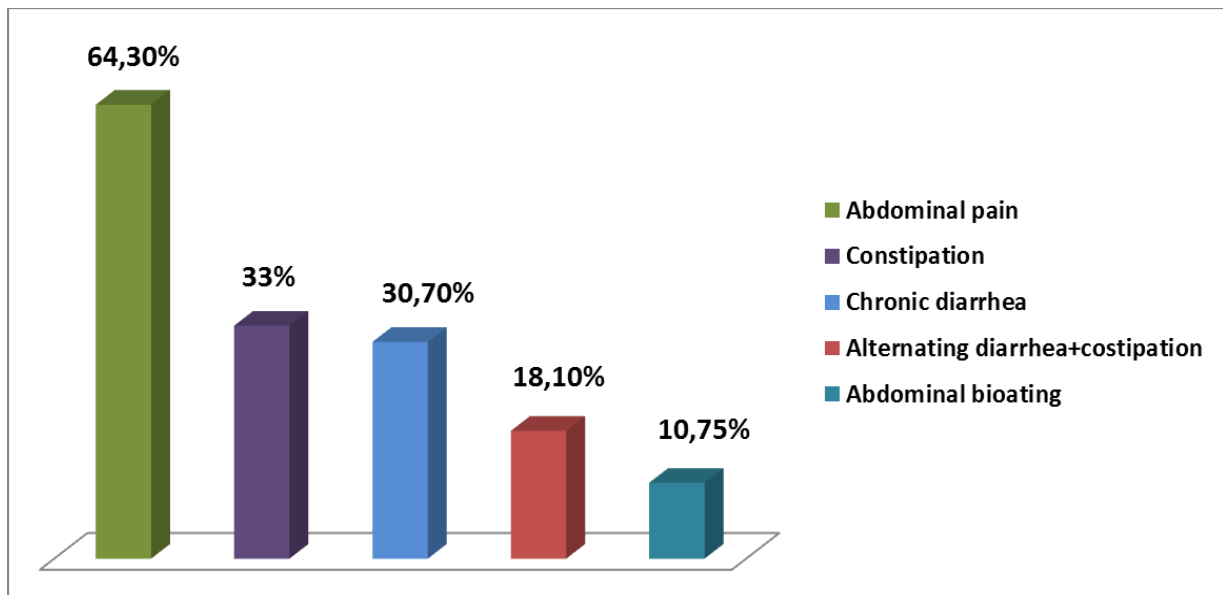
## PATIENTS AND METHODS

From January 2016 to January 2022, were included all patients with symptoms of IBS (abdominal pain, transit disorder, abdominal bloating) referred to unit for ileocolonoscopy. Patients with warning signs (rectal bleeding, melena, anemia, altered deterioration of the general condition) or with incomplete colonoscopy were excluded. The diagnosis of IBS was retained in patients with a normal total ileo-colonoscopy. All colonoscopies were done under

propofol sedation and all patients were prepared with Polyethylene Glycol (PEG).

## RESULTS

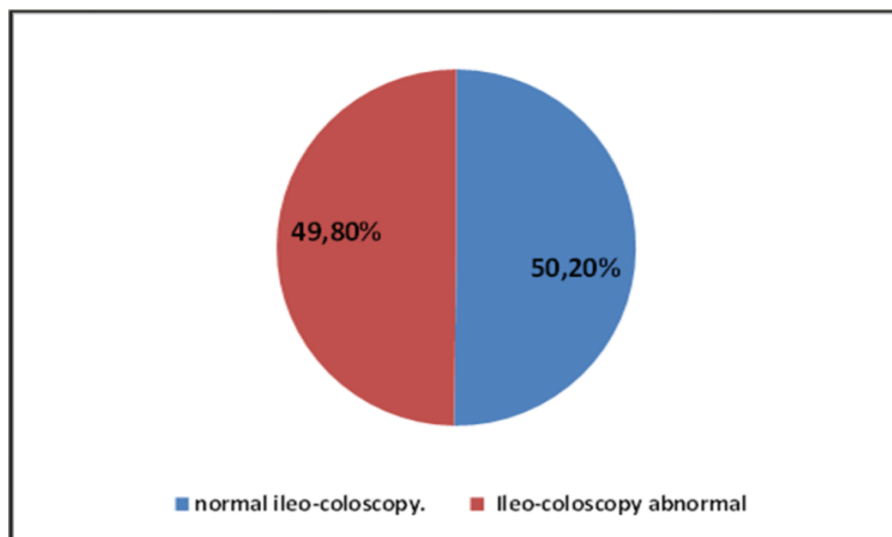
Of 4530 ileo-colonoscopies performed, 1132 (25%) were indicated for symptoms of IBS without warning signs. The average age of the patients was 47 years (16-89 years), the age group of 40-65 years predominated in 41%. 66.7% were female.



**Fig. 1: Clinical symptoms experienced by the patients in our study**

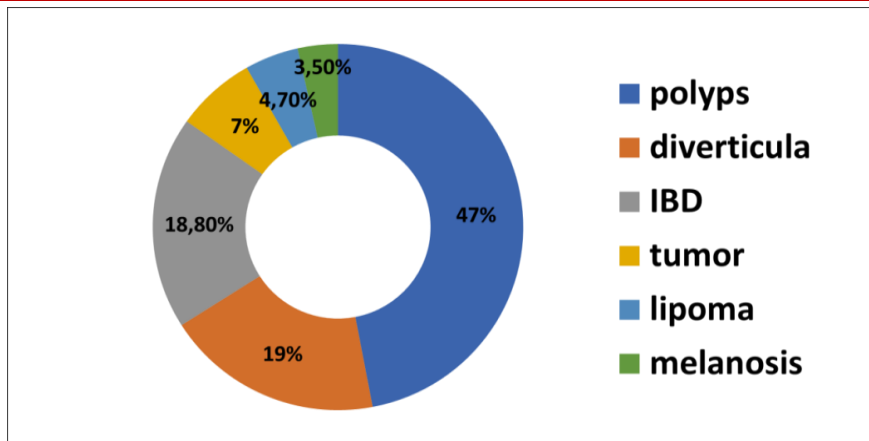
The frequency of symptoms was as follows: abdominal pain in 64.3% of cases, chronic diarrhea:

33%, and constipation: 30.7%, alternating diarrhea-constipation: 18.1% and abdominal bloating in 10.75%.



**Fig. 2: ileo-colonoscopy results**

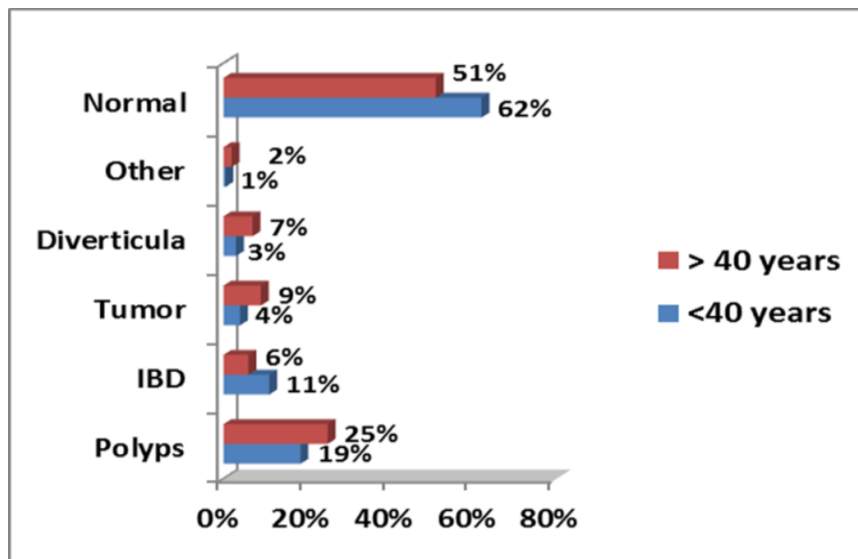
569 patients (50.2%) had a normal ileo-colonoscopy. Ileo-colonoscopy was abnormal in 49.8% of cases.



**Fig. 3: Anomalies found in ileo-coloscopy**

Ileo-colonoscopy was abnormal in 49.8% of cases: polyps: 47%, diverticula: 19%, congestive or

ulcerative colonic and/or ileal mucosa: 18.8%, tumour: 7%, lipoma: 4.7% and colonic melanosis: 3.5%.



**Fig. 4: Distribution of the anomalies depending on age**

Tumors were primarily in patients > 40 years old (9%), and IBD lesions in patients < 40 years old (11%).

## DISCUSSION

The prevalence of Irritable Bowel Syndrome was 25%. This prevalence was close to that of Diarra [2]. (21.35%) and Ibrahim *et al.*, [5]. (31.8%) is higher than that of Meyiz *et al.*, [3]. (13%) and Sehonou & Leoubou [4], (14%). This difference would find its explanation in the use of diagnostic criteria which varied from one study to another, the difference in sampling techniques (the size, the target and the age groups of the samples and the duration of the 'study). The prevalence varied from country to country; other authors have also pointed this out (Meyiz *et al.*, [3]); Canavan *et al.*, [6]. The most affected age groups were those of 25-40 years (41%) and 40-65 years (30%). The age group of 25-40 is superimposable with the data from Bensalek in (54.91%) (Bensalek, [7]; that of

Meyiz [3] (61.8%). This study demonstrated that women were the most affected regardless of age group, but also that female sex was a factor associated with functional bowel diseases. This agrees with the majority of studies showing that women were the most affected compared to men (Sehonou & Leoubou [4]; Meyiz *et al.*, [3]; Atidi [8]). The particular emotional biological profile of women could explain this vulnerability (Canavan *et al.*, [6]. Stress has been shown to trigger TFIs in 84.09% of all individuals (Canavan *et al.*, [6]). Regarding the clinical signs, the most common were abdominal pain (64.3%) and constipation (33%). These data can be superimposed with those obtained in the Atidi study with 100% for abdominal pain and 72.9% for constipation (Atidi, [8]). Ileo-colonoscopy was abnormal in 49.8% of cases: polyps: 47%, diverticula: 19%, congestive or ulcerated aspect of the colonic and/or ileal mucosa: 18.8%, tumour: 7%, appearance of lipoma: 4.7% and colonic melanosis: 3.5%. These data are identical with those obtained in the study by el khelifa A *et al.*, [9]. With 36% of abnormal ileo-

colonoscopy: sessile polyps 11%, diverticulosis 9%, IBD 7%, tumor 5%. Tumors were primarily in patients > 40 years old (9%), and IBD lesions in patients < 40 years old (11%), the prevalence of IBD is 44% in patients with IBD. Crohn's, whether active or in remission, suggesting that this association is not fortuitous [10].

## CONCLUSION

Ileo-colonoscopy remains essential to eliminate an organic disorder. Indeed, half of our patients with symptoms of FBD without warning signs have an organic lesion: tumors in first place in patient > 40 years and IBDs lesions in <40 years old.

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