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## Prevalence of inflammatory bowel disease and associated predisposing factors

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### Abstract

**Background:** Inflammatory bowel disease is a chronic relapsing inflammatory condition of the gastrointestinal tract. A descriptive study was conducted to observe the prevalence of inflammatory bowel disease and associated predisposing factors. Most of the patients have the past medical history of various disease as bloody stools, bleeding per rectum and some are anemic. It is more common between the age of 15-45. Different drugs are used for its treatment like Omeprazole, Itopride HCL, Levosulpiride and sucralfate syrup. But most commonly used drug is Mesalamine (5-amino salicylic acid).

**Materials and Methods:** A descriptive, observational, questionnaire based study was conducted to observe the prevalence, associated predisposing factors and awareness level about inflammatory bowel disease in different hospitals of Lahore. Sample size was one hundred and fifty subjects both male and female between 15-45 years of age had been prescribed with inflammatory bowel disease. Duration of the study was two months. Various public sector and private sector clinical settings were visited for the purpose of this study. The results have been interpreted and presented graphically and in tabular form using Microsoft Excel.

**Results:** The results showed that prevalence of disease is more common in males than females. While awareness level was low in studied population regarding inflammatory bowel disease. Most of the people experienced bloody stools. Some of the eating habits which aggravate the bowel disease like caffeine consumption and alcohol drinking produce effects in fewer patients but tobacco smoking worsen the condition in 90% patients. Mesalamine is most commonly used drug for inflammatory bowel disease

**Conclusion:** From the present study result it was concluded that the inflammatory bowel disease is under considerations in Pakistan as most of the patients feel hesitation in getting the treatment and are unaware of the severity of the disease. There are several other reasons behind inflammatory bowel diseases like caffeine consumption, alcohol, junk food, smoking which worsen the disease. Different drugs are used for its treatment. But most commonly used drug is Mesalamine (5-amino salicylic acid).

**Keywords:** Chronic, prevalence, predisposing factors, past history, mesalamine

### Introduction

It is found that ratio of occurrence of disease is more common in male than in female. <sup>[9]</sup>

The gut microbiota plays a role in promoting and maintaining inflammation in inflammatory bowel diseases, hence the rationale for the use of antibiotics in the treatment of those disorders. Rifaximin has provided promising results in inducing remission of Crohn's disease and ulcerative colitis. Rifaximin, either in monotherapy or as an adjunctive treatment, was found to provide satisfactory results when administered for up to 12 weeks. <sup>[10]</sup>

Many inflammatory mediators have been identified in inflammatory bowel disease; antibodies against these mediators and methods to block the production or receptors for these mediators hold great promise as potential therapy for inflammatory bowel disease. <sup>[11]</sup>

The use of herbal therapy in inflammatory bowel disease is increasing worldwide. In ulcerative colitis, herbal medicines such as aloe vera gel, wheat grass juice, boswellia serrate and bovine colostrum enemas used in the treatment of ulcerative colitis. Boswellia serrate gum resin and plantago ovate seeds were as effective as mesalazine. In Crohn's disease, mastic gum, Artemisia absinthium were superior to placebo in inducing remission and preventing clinical postoperative recurrence respectively. <sup>[12]</sup>

The study aimed to evaluate the prevalence of inflammatory bowel disease and observe the associated predisposing factors.

**Materials and methods**

A descriptive observational and questionnaire study was conducted to observe the prevalence, associated predisposing factors and awareness level about inflammatory bowel disease in different hospitals of Lahore. Sample size was one hundred and fifty subjects both male and female between 15-45 years of age had been prescribed with inflammatory bowel disease. Duration of the study was two months. Various public sector and private sector clinical settings were visited for the purpose of this study. A data collection form was developed to obtain patient history, patient complaints, and management regarding disease. Data collected was analyzed and presented in the form of graph. The results were analyzed using basic statistical measures.

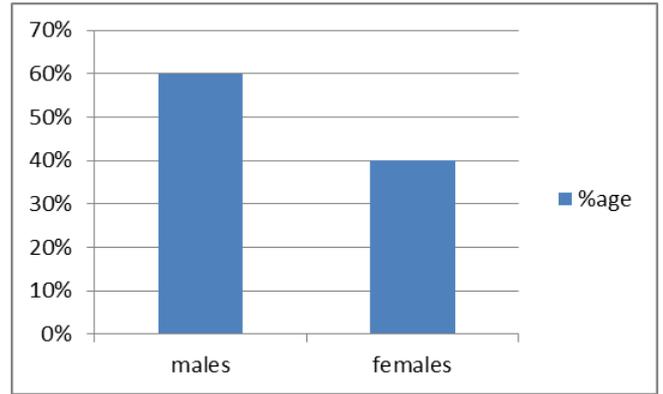
**Results**

This study was conducted to observe prevalence of inflammatory bowel disease and associated predisposing factors. Figure 1 showed that prevalence of disease is more common in males than females. Figure 2 depicts that awareness level were observed which found that almost 70% studied population were unaware of this disease.

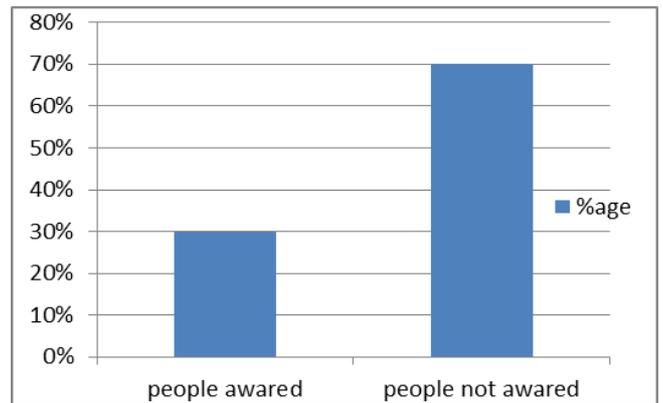
Figure 3 showed that about 56% of patients experienced diarrhea with bloody stools, while 40% patients have abdominal cramping. Fewer patients face the problems of weight loss and abdominal bloating. Figure 4 showed that some of the eating habits which aggravate the bowel disease like caffeine consumption and alcohol drinking produce effects in fewer patients but tobacco smoking worsen the condition in 90% patients.

Figure 5 indicates that about 70% patients use 1-2 packs of tobacco smoking daily while 20% use more of it. 10% patients have no prior history of tobacco smoking. Figure 6

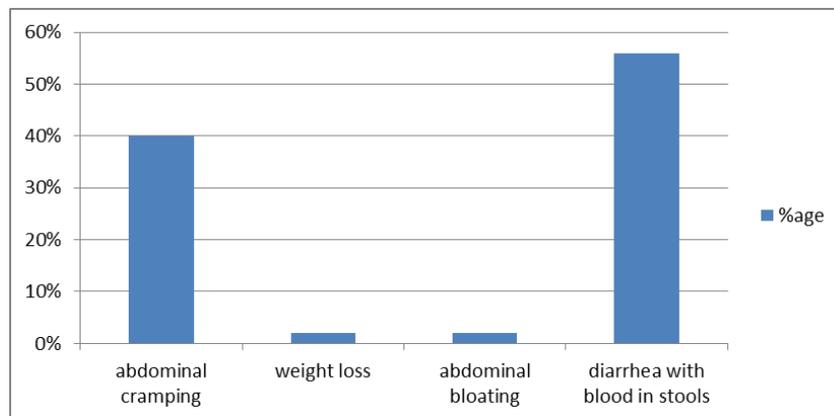
showed that mesalamine and omeprazole is mostly used for treatment of inflammatory bowel disease.



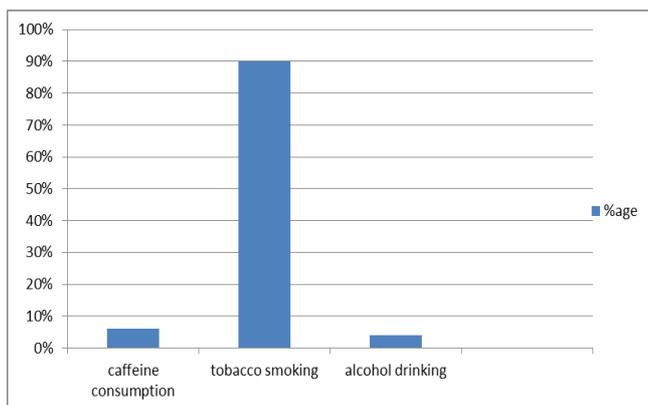
**Fig 1:** Prevalence of inflammatory bowel disease : (n=150)



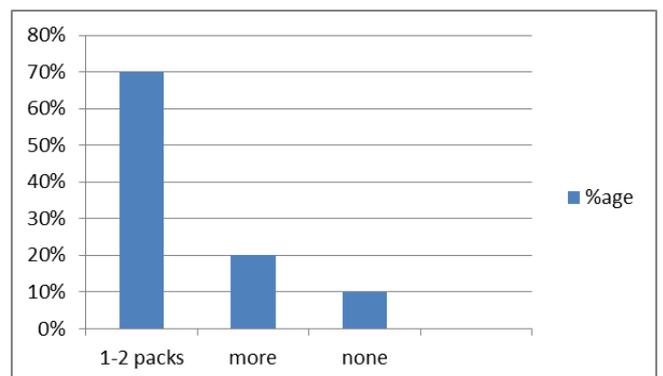
**Fig 2:** Awareness about inflammatory bowel disease: (n=150)



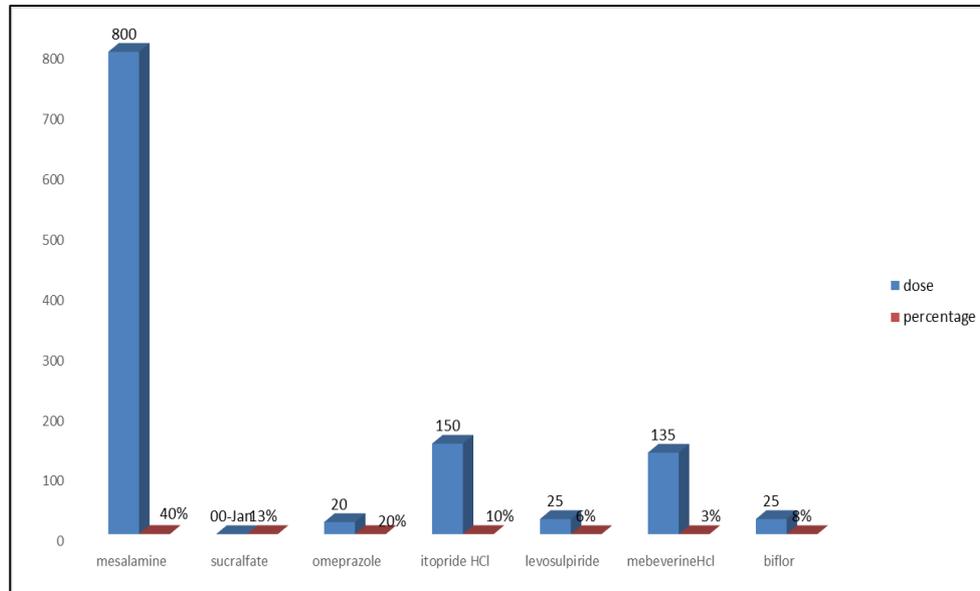
**Fig 3:** Symptoms experienced by patient: (n=150)



**Fig 4:** Eating habits which aggravate the condition: (n=150)



**Fig 5:** Prescription drugs used by patient: (n=150)



**Fig 6:** Prior history of tobacco smoking: (n=150)

### Discussion

Study was conducted to check the occurrence of disease in male and female. The occurrence of disease is more in men. From our study, 150 patients were taken with inflammatory bowel disease and it was found that it is more common in males than in female as smoking may induce the disease. [13] Study was conducted and found that Crohn's disease and ulcerative colitis are intestinal disorders that comprise the inflammatory bowel diseases. The classical therapeutic strategies aim to control the exacerbated host immune response with aminosalicylates, antibiotics, corticosteroids, thiopurines, methotrexate and anti-tumor necrosis factor (TNF) biological agents. [14] A number of additional approaches to IBD therapy, cellular therapy, have shown promising results. There are many reasons found to be the cause of inflammatory bowel disease, such as smoking, too much consumption of alcohol, caffeine, and junk food. [15] Study was conducted and found that Mesalazine has been used for over 30 years in the treatment of inflammatory bowel disease (IBD). It is a highly effective, safe, and well-tolerated drug for treatment of mild to moderate ulcerative colitis, which represents most patients with this disease. [18] Present studies showed that different medications are used for the treatment of disease depending upon the severity of disease. For example mesalamine (5-amino salicylic acid) which is the most commonly used medicine. Sucralfate is in the syrup form used for ulcerative colitis. Omeprazole (proton pump inhibitor) and Itopride HCL is also used. Levosulpiride is used as anti-emetic. MebeverineHCL is anti-spasmodic. Biflor is used against diarrhea. With the right advice and support, inflammatory bowel disease can be improved and even some times can be cured as most of the patients are satisfied with their treatment

### Conclusion

From the present study result it is concluded that the inflammatory bowel disease is under considerations in Pakistan as most of the patients feel hesitation in getting the treatment and are unaware of the severity of the disease. There are several other reasons behind inflammatory bowel diseases like caffeine consumption, alcohol, junk food, smoking may also enhance the disease. 150 patients were

studied with inflammatory bowel disease and it was found that it is more common in males than females. From present study observation the ratio was found to be 60% males and 40% females are suffering from inflammatory bowel disease as the tendency of smoking and caffeine consumption is more common in males. It is more common between the age of 15-45. Above the age of 45 there are very rare cases of this disease. The study proved that the ratio of occurrence of disease is more common in males than females. Different drugs are used for its treatment. But most commonly used drug is Mesalamine (5-amino salicylic acid). Most of the patients feel embarrassment for having the treatment of inflammatory bowel disease but the risk of inflammatory bowel disease can be managed by proper medication.

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