A Study of Inflammatory Bowel Disease Patients in a Gastroenterology Clinic in Sri Lanka

Jayampathi T1, Jayasinghe C1, Manchanayake J2 and Jayatileke S1

1Department of Food Science and Technology, Faculty of Livestock, Fisheries and Nutrition, Wayamba University of Sri Lanka, Makandura, Gonawila, Sri Lanka
2Colombo North Teaching Hospital, Ragama, Sri Lanka

Corresponding author: Jayampathi T, Department of Food Science and Technology, Faculty of Livestock, Fisheries and Nutrition, Wayamba University of Sri Lanka, Makandura, Gonawila, Sri Lanka

Received date: March 22, 2018; Accepted date: March 27, 2018; Published date: April 05, 2018

Copyright: © 2018 Jayampathi T, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Keywords: Crohn’s disease; Ulcerative colitis; Gastroenterology; Skin ulcers; Fistulas

Short Communication

Inflammatory bowel disease (IBD) has two types as Crohn’s disease (CD) and Ulcerative colitis (UC) of which the etiology is unknown [1]. It is a multigenetic disease thought to be caused by environmental, genetic, microbial and immunoregulatory factors [2]. The prevalence of inflammatory bowel disease is increasing throughout the world, especially in USA, Europe, Middle East, Asia and South America [3-5]. Recently the prevalence of IBD is reported in Sri Lanka [6,7] although it was lower compared to western countries but comparable to Asian statistics [6]. The annual incidence of IBD, UC, CD in Sri Lanka were 1.6 per 100,000 population (95% CI: 1.1-2.2), 1 per 100,000 (95% CI: 0.6-1.5), and 0.6 per 100,000 (95% CI: 0.3-1.0) respectively [7]. However there is a lack of data on etiology, common symptoms and socio economic status of IBD patients in Sri Lanka.

A study was carried out in a base hospital in Sri Lanka from April 2016 to June 2016. The subjects of the survey were IBD patients who were registered for the gastroenterology clinic of the Colombo North Teaching Hospital, Ragama, Sri Lanka. A total of 32 patients including 13 male patients and 19 female patients were interviewed. Data including number of cases of IBD reported, number of male patients, number of female patients, number of cases of Crohn’s disease, number of cases of ulcerative colitis, age at diagnosis, monthly income level, district of residence, and symptoms shown at diagnosis were collected by interviewing all IBD patients by using a pre-tested semi-structured questionnaire. The hospital is situated in Gampaha district, therefore 70% of subjects were from Gampaha district and others were from adjacent districts Kegalle (20%) and Puttalam (10%). Out of the test group 4.17% of patients were Tamil and 95.83% were Sinhalese, with no patients from other ethnicities.

Results revealed that a higher percentage of subjects suffered from UC (87.5%) compared to CD (12.5%). In similarity to previous studies there was a predominance of IBD in women [6,7]. The prevalence of IBD, UC and CD among women was 59.38%, 57.14% and 75% respectively. There was a significantly lower (p<0.05) mean age at diagnosis for both CD (35.00 ± 0 years) and UC (33.45 ± 10.64) in males compared to the females (Table 1). The mean age at diagnosis in the study group was higher compared to Western populations (34.9 and 29.5 years for UC and CD respectively) similar to previous studies which may be due to either delayed diagnosis or milder disease with late presentation [3,6].

The most common presentation shown by the patients was blood and mucus diarrhea followed by loss of weight, mucus diarrhea and anemia. There were no patients showing presentations with skin ulcers and fistulas, as shown in Figure 1.

Table 1: Mean age at diagnosis of IBD.

|                | UC       | CD       |
|----------------|----------|----------|
| Both genders   | 40.96 ± 13.5 | 39.50 ± 19.54 |
| Males          | 33.45 ± 10.64 | 35.00 ± 0 |
| Females        | 49.00 ± 9.72 | 41.00 ± 23.64 |

Family history of IBD is less common in Sri Lanka compared to Western countries, which may indicate a lesser genetic predisposition [6]. We have observed the similar results that none of the patients had known family history of IBD. None were suffering from other autoimmune diseases than IBD and there was no history of smoking, although smoking and family histories are factors related to IBD [8].

Conclusion

There was a significant difference in the number of patients belonging to different income groups (p<0.05) with from middle income level, from low income level and from high income level. The higher prevalence of IBD in middle income families compared to low income families is probably due to the shift of the diet to a more westernized high fat, low fiber diet and increased hygiene associated.

Figure 1: Prevalence of different presentations of IBD.

Presentation of IBD
- Blood & mucus diarrhea
- Mucus diarrhea
- Anemia
- Loss of weight

Figure 01 – Prevalence of different presentations of IBD.
with increase in income level which are environmental factors affecting IBD [8], however it is not possible to draw firm conclusions due to the limited size of the study group. The female preponderance for UC, delayed age of diagnosis and less familial clustering are notable differences from Western population studies [9]. Investigation of these differences of IBD emerging in developing countries may give clues on its etiology and pathogenesis.

Acknowledgement

Authors thank the study participants and staff members of the gastroenterology unit of Colombo North Teaching Hospital, Ragama, Sri Lanka.

References

1. Karlinger K, Gyorke T, Mako E, Mester A, Tarjan Z (2000) The epidemiology and the pathogenesis of inflammatory bowel disease 35: 154-167.
2. Hanauer SB (2006) Inflammatory bowel disease: Epidemiology, pathogenesis, and therapeutic opportunities. Inflamm Bowel Dis 12: S3-S9.
3. Crohn’s & Colitis Foundation of America (2014) The facts about inflammatory bowel diseases. Inflamm Bowel Dis 2: 1.
4. Kaplan GG (2015) The global burden of IBD: From 2015 to 2025 12: 720-727.
5. Molodecky NA, Soon IS, Rabi DM, Ghali WA, Ferris M, et al. (2012) Increasing incidence and prevalence of the inflammatory bowel diseases with time, based on systematic review. YGAST 142: 46-54.
6. Niriella MA, De Silva AP, Dayaratne AHKG, Ariyasinghe MHADP, Navarathne MMN, et al. (2010) Prevalence of inflammatory bowel disease in two districts of Sri Lanka: A hospital based survey. BMJ Gastroenterol 10: 32.
7. Kasturiratne A, Mufeena MN, Mettananda KC, Fernandopulle N, Rajindrajith S, et al. (2014) Incidence of inflammatory bowel disease in Gampaha district: details of the Sri Lankan component of the Asia-Pacific Crohn’s and colitis epidemiology study 59: 16-18.
8. Legaki E (2016). Influence of environmental factors in the development of inflammatory bowel diseases 7: 112.
