

The Consequences of Chronic Illness in Patients with Inflammatory Bowel Disease: The Study of Cypriot Patients

^{1,2}Maria Tsoukka, ^{1,3}Eleni Jelastopulu, ⁴Panagiota Evangelou, ⁵Savvas Zannetos, ^{1,6}George Charalambous

¹Postgraduate Program Health Management, Frederick University, Nicosia, Cyprus

²General Hospital of Larnaca, Larnaca, Cyprus

³Department of Public Health, School of Medicine, University of Patras, Greece

⁴Undergraduate Medical School, University of Cyprus

⁵Directorate General European Programmes, Coordination and Development

⁶General Hospital of Athens "Hippocratio", Athens, Greece

Correspondence Author: marinate@windowslive.com

Accepted 2018-04-17, Published 2018-04-20

Abstract:

Background and aims: In the context of investigating chronic diseases, at the present study there was an effort to investigate the impact of Ulcerative Colitis and Crohn's Disease in Cypriot patients.

Methods: For evaluating the impact of Inflammatory Bowel Disease (IBD) the validated translation of the Inflammatory Bowel Disease Questionnaire (IBDQ) was used. The questionnaire was answered by 204 Cypriot patients suffering with IBD. Out of those, 102 (50%) suffered with Ulcerative Colitis and 102 (50%) Crohn's Disease.

Results: Out of the statistical analysis of the total of patient's it was indicated that the disease has bigger impact in the group of women of the population that took place in the study than in men with p value =0.000 and a mean of 148.30 against 171.87 respectively. It was indicated that there is a bigger impact in relation to the duration of the disease p value =0.000 with the score reducing as the duration of the disease is increasing and also was indicated that patients that did not underwent surgery had better scores that the ones operated with p value =0.001 and a mean of 165.58 against 143.27. There is also an important statistical difference in relation to age but with a weak correlation.

Conclusion: The present study on the total of patients reveals that IBD have negative impacts in Cypriots patients' firstly high risk in women secondly in patients with an increase duration of the disease and thirdly high risk in operated patients.

Key Words: Crohn's Disease, Health Related Quality of Life, Inflammatory Bowel Disease Questionnaire, Ulcerative colitis, Chronic diseases.

Introduction:

Inflammatory Bowel diseases (IBD) are chronic diseases affecting the digestive track accompanied by periods of remissions and relapses. The main types of IBD are Crohn's disease (CD) and Ulcerative Colitis (UC)¹. Chronic disease is defined as any case of deterioration or deviation from the physiological state with one or more of the following characteristics: (a) the disease is permanent (b) leaves residues of inability (c) its caused by non-reversible pathological changes and may require

long term follow ups, supervision or care². IBD infect the digestive system but it's possible to cause extrinsic manifestations as in the joints, the bones, the skin, the eyes and anywhere else leading the patients to end up suffering from a polysystemic disease. Their impact on the patient's way of life is direct^{3,4}.

Materials and Methods:

The Greek version of the inflammatory Bowel disease questionnaire (IBDQ) was used for measuring the impact of the disease on the lives of

IBD patients⁵. IBDQ is a questionnaire made out of 32 questions used to evaluate the general activities of everyday life in four dimensions. Data that concerns intestinal activity, personal interactions, social performance and emotional state. Each question can be answered at a scale of 7 points, as 7 being not a problem and 1 being a serious problem⁶. The questionnaires were handed out in 204 patients suffering with ulcerative colitis in all hospitals and private clinics in Cyprus. Valid questionnaires were considered the ones that were completed by patients meeting the criteria of participation, being age overrating, have a confirmed diagnosis with histological examination after endoscopy, having the ability to communicate and can consent their participation. The study meets all licenses imposed by the Cypriot authorities.

Results:

In the current study we have the participation of 204 patients suffering with IBD of whom 102 suffer with CD and 102 with UC out of all those 107 were men and 97 women. The statistical analysis of the total patients and in relation with the general and special characteristics showed important statistical difference to the female population of the sample with greatest impact of the disease in relation to men ($p=0.000$ mean 148.30 vs. 171.87) (table I). Also, a statistical correlation showed a moderate inverse relationship between in of the disease and impact of the disease $p=0.000$ (table II). Statistical important difference was also revealed in relation to surgical intervention for the disease $p=0.001$ and in patients who underwent surgery with the less favorable quality of life in relation to those who did not had a surgery (143.26 vs. 165.58) (table III).

Discussion:

Chronic diseases are disorders that exist for a long period of time and affect a person's ability to function normally. Some of the chronic diseases need long term medication and are characterized by a progressive physical inability and pain. Others maybe medical controlled, but only with the preposition or a strict compliance of medication and for managing the disease. So, a chronic disease has the ability to provoke deep changes in a person's life resulting in negative impacts of the quality of life⁷. Many researches were concerned with the fact that relating to the results of the current study women showed to have greater impact by IBD over the years. Saibeni S8 et al 2005 mentioned in their research that the perception of quality that relates with health (HRQoI) was much worst in women that

in men and mainly to those of a younger age. According to Zelinkova Z9 2014 men and women differ in matters of sensitivity and to exposure in environmental danger factors for the inflammatory Bowel disease. Cultural circumstances related to gender have as a result the different exposure of both genders in recognizable and environmental factor of danger for IBD and possible making this a situation for covering women sensitivity. On the other hand, according to Rosenblatt E10 2015 it is revealed that body image and sexuality of patients can affected by abdominal pain, diarrhea and state incontinence. That based on researches have a greater impact in women and operated patients. A statistical important difference is revealed in the present study regarding a decreased health quality of life with a greater impact from the disease in operated patients who participated. According to Kozłowska KA11 2014 physical symptoms affect significantly the quality of life, that is a bad quality of live is revealed in relation to physical function, general perception of health and physical role functioning. Also in other studies that concerns operated patients with CD was proved that patients with active CD were improved during the direct postoperative period but not long term. A state that is confirmed based on the history of Crohn's disease and the fact that the disease returns postoperative to most of the patients¹². Regarding the statistical important difference related to age even though the relation is weak, it's important to refer that in a previous research in Cypriot patients was also revealed that specific group ages 35-50 suffering with UC presented a most unfavorable quality of life¹³. This is the reason that Glise and Wiklund¹⁴ et al 2002 mention that the measurements of quality of life of patients with IBD are influenced by age. Enough indicators revealed the presence of differences in group ages and the results in counting the quality of life depends from the age factor. In other words, age is as important factor reflecting in quality of life in measuring different group age. As far as health is concerned quality seems to be influenced by the phase of life that a person is found, with valuations showing that middle age has a lower score in quality of life than ambitious young people and the elderly. Furthermore, this conclusion was justified in a possible relation to the worries and aspects of everyday life, of employment and other factors at different stages of life. Also regarding Cypriot patients it's important that some of the results of the presence study like, the most unfavorable quality of life as the duration of the disease increases, the greatest impact in women population of the study and age, even the relation is

week, they are common independently whether the sample of the patient's population is different.

References:

- 1) Cosnes, J., Gowerrousseau, C., Seksik, P. and Cortot, A. "Epidemiology and natural history of inflammatory bowel diseases," *Gastroenterology*, vol. 140, no. 6, 2011; 1785–1794.
- 2) P. Minaire (1992) Disease, illness and health: theoretical models of the disablement process. *Bulletin of the World Health Organization*, 2011; 70 (3): 373-379.
- 3) WillietN, Sandborn WJ, Peyrin–Biroulet L. Patient-Reported Outcomes as Primary End Points in Clinical Trials of Inflammatory Bowel Disease. *Clinical Gastroenterology and Hepatology*, Volume 12, issue 8,2014; 1246-1256.
- 4) Lahat, A., Newman, S., Eliakim, R., Ben-Horin, S., "Partnerd of patients' with Inflammatory Bowel Disease: how important is their support?" *Clinical and Experimental Gastroenterology* 2014; 225-259.
- 5) Pallis, AG., Vlachonikolis, IG., Mouzas, IA. Quality of life of Greek patients with inflammatory bowel disease. Validation of the Greek translation of the inflammatory bowel disease questionnaire. *Digestion*, 2001; 63: 240 - 246.
- 6) Irvine, EJ., Fegan, B., Rochon, J. et al. QoL a valid and reliable measure of therapeutic efficacy in the treatment of inflammatory bowel disease. *Gastroenterology* 1994; 106:287–96.
- 7) Sprangers MAG, de Regt EB, Andries F, et al. Which chronic conditions are associated with better or poorer quality of life? *J Clin Epidemiol* 2000; 53: 895–907.
- 8) Saibeni S, Cortinovis I, Beretta L, Tatarella M, Ferraris L, Rondonotti E, Corbellini A, Bortoli A, Colombo E, Alvisi C, Imperiali G, de Franchis R, Gruppo di Studio per le Malattie Infiammatorie Intestinali Gender and disease activity influence health-related quality of life in inflammatory bowel diseases. *Hepato-gastroenterology* 2005; 52(62):509-515.
- 9) Zelinkova Z, der Woude CJ. Gender and Inflammatory Bowel Disease. *J Clin Cell Immunol* 2014; 5:245. doi: 10.4172/2155-9899.100024
- 10) Rosenblatt E, Kane S. Sex-Specific Issues in Inflammatory Bowel Disease *Gastroenterol Hepatol* 2015; 11(9): 592–601
- 11) Kozłowska K.A, Bączyk G, Krokowicz P. Quality of life in patients with ulcerative colitis treated surgically, *Gastroenterol* 2014; 9(4): 220–226. doi: 10.5114/pg.2014.45104
- 12) Umanskiy, K., Fichera, A. Health related quality of life in inflammatory bowel disease: The impact of surgical therapy. *World J Gastroenterol* 2010; 16(40): 5024-5034 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v16/i40/5024.htm> DOI: <http://dx.doi.org/10.3748/wjg.v16.i40.5024>
- 13) Tsoukka M, Jelastopulu E, Lavranos G, Charalambous G, Estimation of quality of life in Cypriot patients with inflammatory bowel disease. *World J Gastroenterol* 2017; 23(1): 121-126.
- 14) Glise H, Wiklund I, Health –related quality of life and gastrointestinal disease. *Journal of Gastroenterology and Hepatology* 2002; 17:72-84.

Table 1: Statistical analysis in relation to gender

SEX		N	Mean	Std. Deviation	Std. Error Mean
Total IBDQ	MEN	107	171.8692	35.60186	3.44176
	WOMEN	97	148.2990	39.11473	3.97150

Levene's Test for Equality of Variances			T test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)
Total IBDQ	Equal variances assumed	0.105	0.746	4.506	202	0.000
	Equal variances not assumed			4.485	194.823	0.000

Table2: Statistical analysis in relation to duration of the disease

Correlations			
		Total IBDQ	Duration of the disease
Total IBDQ	Pearson Correlation	1	-.336**
	Sig. (2-tailed)		0.000
	N	204	204
Duration of the disease	Pearson Correlation	-.336**	1
	Sig. (2-tailed)	0.000	
	N	204	204

Table 3: Statistical analysis in relation to surgery for disease

SURGERY FOR DISEASE		N	Mean	Std. Deviation	Std. Error Mean
Total IBDQ	YES	45	143.2667	40.12730	5.98182
	NO	159	165.5849	37.41460	2.96717

Levene's Test for Equality of Variances			t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)
Total	Equal variances assumed	0.060	0.807	-3.476	202	0.001
	Equal variances not assumed			-3.342	67.183	0.001