Quality of life in inflammatory bowel disease in Tunisian patients

Qualité de vie au cours des maladies inflammatoires chroniques de l'intestin dans une population tunisienne

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RÉSUMÉ

Introduction: La gestion de la qualité de vie liée à la santé (QVLS) est de plus en plus considérée comme un objectif important de traitement dans les maladies chroniques y compris les maladies inflammatoires chroniques de l'intestin (MICI).

But : Le but de notre étude était de déterminer l'impact des MICI sur la QVLS des malades et identifier les facteurs intervenant dans l'altération de la QVLS de ces patients.

Méthodes : Nous avons mené une étude cas-témoins, incluant 108 patients : 66 maladies de Crohn (MC) et 42 Rectocolite hémorragique (RCH). Dans la mesure de la QVLS, on a utilisé un questionnaire général « Short Form 36 : SF36 » et un questionnaire spécifique « Tunisian Inflammatory Bowel Disease Questionnaire : T-IBDQ».

Résultats : La QVLS des patients était plus mauvaise que celle des témoins avec une différence statistiquement significative pour six des huit dimensions du SF 36 : "PF", " RP", "GH", "SF", "MH" et "RE", ainsi que le score résumé mental (MCS) et le score résumé physique (PCS). Les facteurs intervenant dans l'altération de la QVLS étaient : l'âge < 30ans, les mauvaises conditions socioéconomiques, l'activité de la maladie, la corticothérapie, un nombre d'interventions chirurgicales >=2 et les antécédents d'hospitalisation(s) antérieure(s). Conclusion : On a démontré que les MICI, aussi bien la MC que la RCH entraînent une altération de la QVLS objectivée par la diminution des scores du SF 36 par rapport aux témoins et touchant presque tous les domaines du SF 36. Les facteurs incriminés peuvent être liés au malade, à la maladie et même au traitement.

Mots-clés

Maladies inflammatoires chroniques de l'intestin, Qualité de vie liée à la santé, SF 36 questionnaire, questionnaire spécifique des maladies inflammatoires chroniques de l'intestin.

SUMMARY

Background : The management of the health-related quality of life (HRQL) is increasingly considered as an important treatment goal in chronic diseases including inflammatory bowel diseases (IBD).

Aim : The aim of our study was to determine the impact of IBD on HRQL and identify the factors involved in the deterioration of HRQL in these patients.

Methods: We conducted a case-control study including 108 patients; 66 had Crohn's disease (CD) and 42 had ulcerative colitis (UC). In the measurement of HRQL, we used a general questionnaire "Short Form 36: SF36" and a specific questionnaire "Tunisian Inflammatory Bowel Disease Questionnaire: T-IBDQ".

Results: HRQL of patients was worse than controls with a statistically significant difference for six of the eight dimensions of the SF 36 "Physical Functionning PF", "Role Physical RP", "General health GH","Social Functionning SF "," Mental Health MH "and" Role Emotional RE "as well as the Mental summary score (MCS) and the Physical summary score (PCS) ($p < 0.05$). The factors involved in the alteration of HRQL were: age <30 years, poor socioeconomic conditions, disease activity, use of corticosteroids, a number of surgeries ≥2 and anterior hospitalization history. Conclusion: In this study, IBD cause impaired HRQL affecting almost all areas of the SF 36 questionnaire. Incriminated factors may be related to the patient, disease and even treatment.

Key-words

Inflammatory bowel diseases, Health related quality of life, SF 36 questionnaire, Specific Inflammatory bowel disease questionnaire.

Quality of life (QOL) is a subjective and quantitative measurement of individual perception of health status. It includes not only the physical side, but also the emotional and social side of the disease (1). Unlike the QOL where factors other than those relating to health are involved, health-related quality of life (HRQL) is interested in the end result of medical action and is, hence, an indicator of choice of the efficiency of medical care. This concept of HRQL is both recent and very present in the current scientific literature (2). The evaluation by physicians can no longer be only based on biomedical criteria. It is important to assess how «should feel» the patient on objective criteria, but also how he «sees» actually on subjective criteria. This is especially interesting to consider for chronic conditions such as Inflammatory bowel disease (IBD): Crohn's disease (CD) and ulcerative colitis (UC) that are a good illustration since they are debilitating chronic diseases, affecting young adults. The different index measuring the clinical activity of IBD do not appreciate the illness experience, ability to work and the emotional and social functions. Only the use of QOL scales allows the physician to understand the patient as a whole, beyond the only organ dysfunctions. The aim of our study is to determine the impact of IBD on HRQL of patients and to identify factors impairing QOL in these patients.

METHODS

It is a case-control study including patients with IBD who presented to the consultation or who were hospitalized at Gastroenterology department of Sahloul University Hospital, Sousse between September 2015 and November 2015. The diagnosis of IBD was based on clinical, endoscopic, radiological and histological data. Informed oral consent of the nature and purpose of the study was obtained from all patients. The control subjects were collected from the medical and paramedical staff who do not have IBD.

Mesuring HRQ :
We used in this study two questionnaires validated in Arabic on the Tunisian population: A general questionnaire for patients and controls; the «Survey Short form 36 (SF-36)» (3) and a specific questionnaire IBD «T-IBDQ» for patients (4).

Short form Survey 36 « SF 36 » :
The SF-36 is a generic scale that measures HRQL. This is an Anglo-Saxon questionnaire containing initially 149 items designed in 1986 from an observational study of «Medical Outcome Study» (MOS) including 2546 patients (5). The initial questionnaire was then reduced to a simplified version of «Short Form» (SF) containing 36 items. In evaluation of HRQL, SF-36 is currently considered «gold standard» thanks to its concision, its high reproducibility, validity and sensitivity to change. The simplified questionnaire contains 36 items grouped in nine dimensions: Physical Functionning (PF), Role physical (RP), Bodily Pain (BP), General Health (GH), Vitality (VT), Social Functionning (SF), Mental Health (MH), Role Emotional (RE), and Health Transition(HT). Several items are grouped to form the score of each dimension between 0 (worst quality) and 100 (highest quality) for each of the 9 dimensions. The first 4 dimensions are synthesized in a Physical Summary (Score PCS) and the following four dimensions in a Mental Summary Score (MCS). Health Transition does not belong in the summary scores. In our study, we used the translated version in Arabic and validated on a Tunisian population (3). The majority of subjects responded to questions by themselves. Illiterate subjects were interviewed by the same person in order to minimize the risk of error. The transformation of the 36 questions in 9 dimensions was made online through the algorithm published in the SF interpretation manual guide 36. The html website address used is as follows: http://www.sf-36.org/demos/SF-36.html.

Inflammatory bowel disease questionnaire « IBDQ » :
Several quality of life assessment questionnaires were designed specially for patients with IBD. The most used worldwide is «The Inflammatory Bowel Disease Questionnaire» (IBDQ) thanks to its performance and demonstrated good psychometric properties (6). It was designed in 1989 by Guyatt et al and validated initially on a Canadian cohort (7). Its use increasingly frequent in clinical trials around the world imposed its translation into various languages and adaptation to different cultures (8). Translated version in Tunisian dialect Arabic was published in 2013. This version contained 30 items divided into 5 areas: Digestive symptoms I (SDI), digestive symptoms II (SDII), systemic signs (SS), emotional disorders (ED) and social Function (SF). Each question is scored according to the number of proposals from 1 (very serious problem) to 4 or 5 (no problem at all). The final score ranges from 30 to 123. The higher the score is, better is quality of life (4).

Statistical analysis :
Data was analyzed using SPSS Version 20. The comparison of 2averages was performed using the Student t test for independent samples or ANOVA test to one factor. The comparison of percentages was performed by the Khi-square test of Pearson, and in case of non-validity, the Fisher exact test. The correlation between two quantitative variables was studied using the Pearson correlation coefficient. The significance level was set at 0.05.

RESULTS

Characteristics of patients and controls :

One hundred and eight patients with IBD and 108 controls were included during the study period. The average age of patients was 37.6 years (range 15-70 years). The patients were divided into 61 women and 47 men with a sex ratio (female / male) equal to 1.29. The socio-demographic characteristics of patients and controls are shown in Table 1.

Table 1 : Socio-demographic characteristics of patients and controls

	Patients N=108	controls N= 108
Mean age (years)	37,61	39,81
Age : n (%)		
Age <30 years	39 (36,1)	34 (31,5)
Age >30 years	69 (63,9)	74 (68,5)
Gender: n (%)		
Male	47 (43,5)	24 (22,3)
Female	61 (56,5)	84 (77,7)
Marital status: n (%)		
Single	36 (33,4)	31 (28,7)
Maried	67 (62)	73 (67,6)
Divorced / widow	4/1 (4,6)	3/1 (3,7)
Socio-economic conditions: n (%)		
Well	18 (16,7)	36 (33,4)
Good	53 (49)	70 (64,8)
Bad	37 (34,3)	2 (1,8)
Educational level : n (%)		
Illiterate / Primary / Secondary	84 (77,8)	24 (22,2)
University	24 (22,2)	84 (77,8)
Employment status : n (%)		
No employment	46 (42,6)	0 (0)
With employment/ student	62 (57,4)	108 (100)
Smoking		
Yes	31 (28,7)	13 (12)
No	77 (71,3)	95 (88)
Surgical or medical personal history: n (%)		
Yes	20 (18,5)	47 (43,5)
No	88 (81,5)	61 (56,5)
Family history of IBD: n (%)		
Yes	8 (7,4)	6 (5,5)
No	100 (92,6)	102 (9,5)

Comparison of quality of life by the SF36 between patients and controls:

In univariate analysis, comparison of HRQL by the SF-36 between patients and controls showed that the scores of all dimensions were lower in patients with a statistically significant difference for the dimensions «Physical Functionning PF» (p = 0.001), «Role Physical RP» (p = 0.001), «General Health GH» (p <0.001), «Social Functionning SF» (p <0.001) «Mental Health MH» (p <0.001), «Role Emotional RE» (p = 0.032), «Health Transition HT» (p <0.001) and for the «Physical summury score» PCS (p = 0.005) and «the Mental summary score» MCS (p <0.001). For the remaining two dimensions «Bodily Pain BP» and «Vitality VT ', scores were comparable between cases and controls (**Figure 1**).

In multivariate analysis, the IBD status was associated with impaired HRQOL for six dimensions of the SF 36 «Physical Function PF», «Role Physical RP,» «General Health GH «,» Social Functionning SF «,» Mental Health MH «and» Role Emotional RE «as well as Physical summary score (PCS) and Mental summary score (MCS), independently of other factors by which the two groups differed (table 2).

Table 2 : IBD status and impaired HRQL in multivariate analysis

Dimensions of SF 36	Beta	P
PF	-0,364	<0,001
RP	-0,243	<0,001
GH	-0,331	<0,001
SF	-0,352	<0,001
MH	-0,166	0,017
RE	-0,278	<0,001
MCS	-0,245	<0,001
PCS	-0,284	<0,001

Comparison of T-IBDQ and SF36:

A statistically significant correlation was found between the total score of the T-IBDQ with its various areas and all dimensions of SF 36. In fact, the correlation coefficient «r» was constantly positive with p<0.05 (table 3), which means that over the values of the global score of the T-IBDQ and its areas were high, the scores of dimensions of SF 36, the Physical Summury Score and Mental Summary Score were also high.

Factors influencing the HRQoL of patients with IBD:

Factors related to patient :

The correlation between the general and specific questionnaires allowed to us to study the factors influencing the HRQL of patients based on «T-IBDQ» scores. Elderly patients over 30 years had higher scores of T-IBDQ with a statistically significant difference for the field «emotional disorders» (p = 0.045). Indeed, patients aged under 30 years had more emotional problems such as frustration, depression and anxiety. Scores of T-IBDQ and its areas were lower in patients with poor socio-economic conditions with a statistically significant difference for the total score of T-IBDQ, «emotional disorders» and «social function». There was no difference in scores of T-IBDQ and its areas based on gender, marital status, educational level, employment status, smoking, presence of personal medico surgical history and family history of IBD (table 4).

Factors related to the disease:

The total score of the T-IBDQ and its areas were compared between the three groups of patients: patients in remission or with minimal activity, patients with moderate activity, and those with severe activity or having a complication. This analysis showed that more IBD was active, the scores of of T-IBDQ and its areas were low. However, the scores of the five areas of the T-IBDQ were

Table 3 : Corrélations between SF36 and T-IBDQ

		Total T-IBDQ	Digestive Symptoms I	Digestive Symptoms II	Systemic signs	Emotional disorders	Social Function
PF	r	0472	0,379	0.385	0,467	0,373	0,407
	p	0,000	0,000	0.000	0,000	0,000	0,000
RP	r	0,510	0,326	0.478	0,463	0,495	0,472
	p	0,000	0,001	0.000	0,000	0,000	0,000
BP	r	0,624	0,449	0.695	0,626	0,522	0,463
	p	0,000	0,000	0.000	0,000	0,000	0,000
GH	r	0,448	0,325	0.434	0,489	0,446	0,298
	p	0,000	0,001	0.000	0,000	0,000	0,002
VT	r	0,685	0,412	0.570	0,738	0,700	0,530
	p	0,001	0,000	0.000	0,000	0,000	0,000
SF	r	0,465	0,339	0.374	0,426	0,393	0,459
	p	0,000	0,000	0.000	0,000	0,000	0,000
RE	r	0,517	0,327	0.525	0,524	0,606	0,443
	p	0,000	0,001	0.000	0,000	0,000	0,000
MH	r	0,556	0,264	0.456	0,478	0,595	0,419
	p	0,001	0,006	0.000	0,000	0,000	0,000
HT	r	0.411	0.364	0.377	0.398	0.290	0.364
	p	0.001	0.000	0.000	0.000	0.000	0.000
PCS	r	0,610	0,497	0.598	0,621	0,462	0,500
	p	0,000	0,000	0.000	0,000	0,000	0,000
MCS	r	0,609	0,308	0.512	0,594	0,699	0,506
	p	0,000	0,001	0.000	0,000	0,000	0,000

comparable between patients, whatever the type of IBD, disease extent, duration of evolution, the number of previous outbreaks , duration of remission, the presence of ano-perineal lesions, and extra digestive manifestations. The total score of T-IBD and scores of its domains «digestive symptoms I» and «social function» were statistically lower in patients with oral corticosteroids. However, the different scores were comparable between patients treated and those not treated with sulfapyridine, 5 ASA, the thiopurines, infliximab or adalimumab. The scores of different areas were identical in patients operated and other patients. The scores of patients who underwent two surgeries were lower than those with a single intervention, with a statistically significant difference for the area «digestive symptoms II» related to abdominal pain, abdominal bloating and difficulty in emission of gases (p = 0.008). Patients who have been hospitalized previously had lower scores with a statistically significant difference for the field «social function» (p = 0.05). But the number of hospitalizations did not influence the quality of life in these patients (Table 5).

Thus, the factors involved in the deterioration of HRQL in our study were: age <30 years, poor economic conditions, the activity of the disease, taking steroids and a number of surgeries> = 2 (Figure 2).

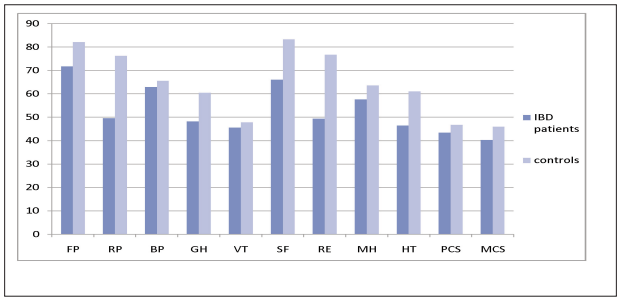

Figure 1: Dimension of SF36 of patients and controls

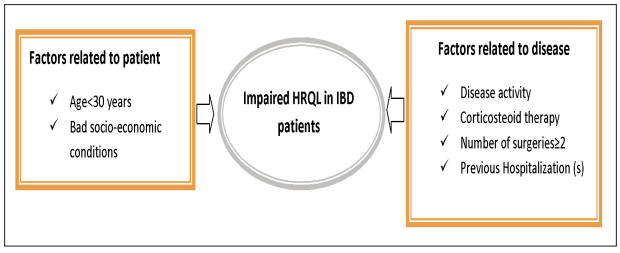

Figure 2 : Factors associated with impaired HRQL in our series

DISCUSSION

Our study is the first one that has assessed HRQOL in patients with IBD using the Arabic version of the two questionnaires validated in Tunisia: the SF-36 and T-IBDQ. The scores of the eight dimensions of the SF36 were lower than control group with a statistically significant difference in six dimensions. This alteration of HRQOL in patients with IBD was also found in several

Table 4 : T-IBDQ scores accordig to the characteristics of IBD patients

			Digestive symptoms I		Digestive symptoms II		Systemic signs		Emotional disorders		Social Function		total score T-IBDQ	
		N (%)	Average	p	Average	p	Average	p	Average	p	Average	p	Average	p
Age	<30 years	39(36)	18,64	NS	11,51	NS	9,94	NS	25,38	**0,045**	23,84	NS	89,43	NS
	≥30 years	69 (64)	18,97		12,37		10,94		27,63		25,47		95,53	
Gender	Male	47 (43)	18,98	NS	11,80	NS	10,31	NS	26,42	NS	24,85	NS	92,36	NS
	Female	61 (57)	18,68		12,40		10,31		27,34		24,93		94,59	
Marital status	Maried	67 (62)	18,69	NS	11,82	NS	10,29	NS	26,92	NS	25,13	NS	92,67	NS
	Not maried	41 (38)	19,75		12,46		11,04		26,25		24,48		94,41	
Socio-economic conditions	Bad	37 (34)	17,75		11,43		9,56		24,54		22,02		86,43	
	good	53 (49)	19,35		12,30		11,15		28,13		25,88		97	
	well	18 (17)	19,61	NS	12,66	NS	11	NS	27,66	**0,008**	25,77	**0,01**	96,72	**0,01**
Educational level	illeterate/ primary/ secondary	24 (22)	18,61	NS	12,00	NS	10,54	NS	26,71	NS	24,82	NS	92,86	NS
	University	84 (78)	19,66		12,25		10,70		27,20		25,12		94,95	
Employment	No	45 (42)	18,67		12,13		10,56		26,30		24,67		92,39	
	Yes / student	63 (58)	18,98	NS	12,01	NS	10,59	NS	27,20	NS	25,04	NS	94,03	NS
Smoking	No	77 (71)	18,87	NS	12 ,00	NS	10 ,48	NS	26 ,74	NS	24,79	NS	93,00	NS
	Yes	31 (29)	18,80		12,22		10,83		27,03		25,12		94,16	
Personal history	Yes	11 (10)	18,72		11,89		10,60		26,59		24,78	NS	92,63	NS
	No	97 (90)	19,40	NS	12,80	NS	10,50	NS	27,85	NS	25,35		96,40	
IBD family history	Yes	8 (7,4)	19,62	NS	12,75	NS	10,62	NS	25,25	NS	25,25	NS	93,50	NS
	No	100 (92,6)	18,79		12,00		10,58		26,95		24,86		93,32	

Table 5 : T-IBDQ scores according to IBD characteristics and therapeutic management

				Digestive Symptoms I		Digestive Symptoms II		Systemic Signs		Emotional Disorders		Social Function		total score T-IBDQ	
			N (%)	Average	p	Average	p	Average	p	Average	p	Average	P	Average	p
IBD Type		CD	66 (61)	19,22	NS	12,07	NS	10,66	NS	26,83	NS	25,01	NS	93,81	NS
		UC	42 (39)	18,26		12,04		10,45		26,80		24,69		92,57	
CD	Iléal	Yes	47 (43,5)	19,44	NS	11,95	NS	10,44	NS	26,70	NS	25,04	NS	93,59	NS
		No	61 (56,5)	18,68		12,36		11,21		27,15		24,94		94,36	
	colic	Yes	48 (44,4)	19,00	NS	11 ,05	NS	10,51	NS	26,65	NS	24,77	NS	93 ,44	NS
		No	60 (55,6)	20,00		12,51		11,22		27,44		25,55		95,27	
UC	Distal		11 (26)	16,63	NS	10,81	NS	9,36	NS	25,81	NS	24,27	NS	86,90	NS
	Left		13 (31)	17,69		11,44		9,69		25,46		23,53		87,69	
	Pancolic		18 (43)	19,66		13,22		11,66		28,38		25,77		92,57	
Number of previousoutbr eaks	0-1		41 (38)	20,02	NS	12,39	NS	10,70	NS	26,90	NS	24,80	NS	94,85	NS
	2-4		53 (49)	18,09		11,78		10,50		26,56		24,80		92,00	
	≥ 5		14 (13)	18,33		12,25		10,50		27 ,75		25,58		94,25	
Remission duration	< 6 months		16 (14,8)	19,25	NS	12,37	NS	10,50	NS	25,50	NS	24,00	NS	92,56	NS
	≥ 6 months		62 (57,4)	19,83		12,79		11,16		28,00		26,37		98,12	
Disease duration	Remission/minimal activity		82 (76)	19,56	0,014	12,58	0,002	10,91	0,007	27,41	0,029	25,78	<0,001	96,41	0 ,001
	Moderate activity		12 (11)	17,75		11,33		10,41		27,08		24,50		91,08	
	Severe activity/complication		14 (13)	15,64		9,64		8,70		23,14		20,00		77,21	
EDM	Yes		34 (31,5)	18,29	NS	11,38	NS	10,00	NS	25,52	NS	24,00	NS	89,20	NS
	No		74 (68,5)	19,10		12,37		10,85		27,41		25,29		95,22	
Medical treatment	5-ASA	Yes	16 (14,8)	19,68	NS	12,68	NS	10,81	NS	27,75	NS	25,93	NS	96,87	NS
		No	92 (85,2)	18,70		11,95		10,54		26,66		24,70		92,71	
	Sulfasal azine	Yes	17 (15,8)	18,70	NS	12,88	NS	11,17	NS	27,82	NS	25,35	NS	95,88	NS
		No	91 84,2)	18,87		11,91		10,47		26,63		24,80		92,85	
	Prednis one	Yes	14 (13)	16,53	0,017	11,00	NS	10,13	NS	26,26	NS	22,60	0,043	86,53	0,045
		No	94 (87)	19,22		12,23		10,65		26,91		25,25		94,43	
	Azathio prine/6 MP	Yes	55 (51)	19,08	NS	12,10	NS	10,67	NS	26,57	NS	25,16	NS	93,85	NS
		No	53 (49)	18,59		12,01		10 ,48		27,09		24,59		92,76	
	Inflixim ab/Adal imumab	Yes	23 (21,3)	19,26	NS	11,73	NS	10,43	NS	26,69	NS	24,82	NS	92,95	NS
		No	85 (78,7)	18,74		12,15		10,62		26,85		24,90		93,34	
Surgery		Yes	37 (34)	18,75	NS	12,48	NS	10,83	NS	27,43	NS	24,91	NS	94,43	NS
		No	71 (66)	18,90		11,84		10,45		26,50		24,87		92,76	
Number of surgeries		1	27 (25)	19,11	NS	13,25	0,008	11,14	NS	28,03	NS	25,51	NS	97,07	NS
		≥ 2	10 (9,2)	17 ,80		10,40		10,00		25,80		23,30		87,30	
Previous Hospitalization		Yes	80 (74)	18,61	NS	11,86	NS	10,42	NS	26,57	NS	24,36	0,05	92,00	NS
		No	28 (26)	19,53		12,64		11,03		27,53		36,39		97,14	
Number of previous Hospitalization		1	51 (47)	19 ,05	NS	11,70	NS	10,29	NS	26,52	NS	24,60	NS	92,21	NS
		≥ 2	29 (27)	17,82		12,13		10,65		26,65		23,93		91,62	

EDM : extra-digestive manifestations, 5 ASA : 5-amino-salicylic Acid , 6MP : 6 mercapto-purine

studies (9, 10, 11). In fact, Bernklev and al. had compared HRQOL of 514 patients (166 CD, 348 UC) to a control group (2323 healthy subjects). In this study, the scores of the 6 dimensions of the SF 36 from 8 in ulcerative colitis and 7 dimensions on 8 in CD were significantly lower in patients than in controls (9). Bastida and al. Had shown that 8 dimensions of the SF 36 were significantly lower in patients with IBD (68 CD, 24 UC) compared to the general population (10). In an European cohort study including 769 patients (517 UC, 252 CD), 7 dimensions among 8 dimensions of the SF-36 were reduced compared to the general population. The scores of the dimension MH «mental health» were lower in case of Crohn's disease (11). In contrast to these studies, Anderson and al. showed that there was no significant difference in scores of SF-36 between patients with CD in remission and controls (12).

In our study, a statistically significant correlation was found between the total score of the T-IBDQ with its various fields and all dimensions of SF 36. This was demonstrated in several studies (13, 14). In a Chinese study, Ren et al. compared the scores of areas of IBDQ to the dimensions of SF 36 scores in 92 patients (40 CD, 52 UC). A statistically significant correlation was observed with a correlation coefficient Pearson r ranging between 0.51 and 0.82 (13). In a Greek study, Pallis et al. have shown a strong correlation between the scores of the SF 36 IBDQ and in a population of 114 patients (45 CD, 69 UC) (14).

As well as our results, Rubin et al. (15) and Saibeni et al. (16) have found that younger patients had lower HRQOL. Other authors demonstrated that age was inversely related to HRQL scores (17, 18). This can be explained on the one hand to the increase in the incidence of co-morbidities associated with IBD and secondly to the own morbidity age. In most studies, the female gender was found as a factor significantly associated with impaired HRQoL (19, 20). Several hypotheses for this finding are frequently reported in these studies. Psychosocial factors may play a more important role in women than in men. In fact, women have larger concerns about the disease and its impact on body image. Some authors have found that scores of IBDQ were significantly lower in patients with poor material conditions (15, 21). Other studies have shown a positive correlation between the level of university studies and HRQL (17, 19). This relationship may be due to better socio-economic level in this group of patients. Indeed, subjects with a high educational level have easier access to information concerning their disease. However, uneducated patients with lack of information about their pathology has more concerns about their disease and are unable to develop adaptive strategies (18). In most published series, the activity of IBD was the most consistently correlated factor to HRQL. In the meta-analysis of Van der Have M. et al. a correlation between alteration of HRQL and IBD activity, especially in CD, has been demonstrated in 10 studies (22). Several authors have reported a negative association between glucocorticoid therapy and HRQOL (11, 23). The side effects of steroids cosmetic, sleep disorders and mood were responsible for impaired HRQOL in these patients (23). Moreover, in most studies, corticosteroid therapy was not an independent factor responsible for impaired HRQOL because it is confused with disease activity. Rather, improving HRQOL with biotherapy type infliximab and adalimumab was reported in large clinical trials (24, 25), this was not observed in our study, probably because the number of patients under biotherapy was low. Even in the era of biologics, the need for surgery in IBD remains high (26). In the study of Agostini A. et al. including 103 patients (70 and CD, 33 UC), of which 37 were operated (ileal resection in 37 cases and colectomy in 10 cases), surgery was predictive of impaired QOL and particularly mental health ($p < 0.005$) (27). However, EK Wright et al. demonstrated in a study of 133 patients with CD who have had an ileocecal resection, a significant improvement in HRQOL observed at 6 months after surgery ($p < 0.001$) and that this improvement was sustained and maintained 12 months and 18 months postoperatively (28).

CONCLUSION

In our study, we found that IBD, as well as CD and UC, had a considerable impact on HRQOL affecting all areas: physical, emotional, sexual, professional and social. Since HRQL is directly correlated to the disease activity, medical treatment must focus to control intestinal inflammation to achieve clinical, endoscopic and histological remission, even allowing the patient to have a better quality of life. The effectiveness of treatment should be evaluated not only on the basis of clinical disease activity but also on the basis of quality of life tools. In Tunisia, the management of IBD patients must appeal to the specific questionnaire in its Tunisian version. However, national studies on a larger scale would be necessary to make the use of HRQOL measurement tools in these patients in common practice in Tunisia.

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