QUALITY OF LIFE IN PATIENTS WITH ULCERATIVE COLITIS

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QUALITY OF LIFE IN PATIENTS WITH ULCERATIVE COLITIS (Abstract): Patients with inflammatory bowel disease (IBD) have to live with the perspective of a potential disability, which may lead in time to impaired quality of life (QoL). In order to fully understand the impact of IBD on patients and their careers we need to quantify the QoL. Aim: To evaluate HRQol in ulcerative colitis patients as opposed to the general population and to identify the significant changes of HRQoL in accordance with the specific progression of UC. Methods: The prospective study (January 2010 - December 2012), included 105 patients with ulcerative colitis (UC). Disease activity was quantified by means of the Truelove and Witts score (mild, moderate and severe). All patients were administered a self-completed IBD questionnaire (IBDQ). Lower scores were related to a worse QoL. Statistical analysis was performed and differences were considered significant when p≤ 0.05. Results: Ninety-one percent (91%) were admitted with a flare, while they were asked to fill in the IBDQ. Proctitis was met in 2.94% of the cases, left-sided colitis in 71.1% and pancolitis in 26%. There were 32 patients with mild activity, 62 with moderate activity and only 3 with severe activity. The range score for QoL was 90-180. In proctitis: 80-190, in left-side colitis: 120-200, in pancolitis: 70-160 (p>0.05). The patients with severe form had a lower score (50-140) than patients in remission (130-180) (p<0.01). Conclusion: Patients with UC have significantly influenced the QoL as compared to the general population. We found no significant differences regarding the extension of the lesions. The severity of the flare had a significant impact on the QoL. Key words: QUALITY OF LIFE, ULCERATIVE COLITIS, STATISTICAL ANALYSIS.

The “quality of life” (QoL) concept has been taken into consideration and studied ever since 1946, when World Health Organization defined health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (1).

Quality of life represents a “holistic self-assessment of satisfaction, with reference to the individual”, being a highly controversial multidimensional concept, which is difficult to define, although it seems quite easy to grasp its meaning (2, 3, 4).

The term “health-related quality of life” (HRQoL) was defined as being the functional effect of a disease and the treatment of the patient, as it is perceived by the patient. The patient’s perception of his health
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is vital for understanding the way in which he/she organizes his/her activity. HRQoL may be influenced by a number of factors such as: financial status, habitat, job, spirituality, social support, and, last but not least, the health of the individual.

Although they represent different concepts, functional status and HRQol are used together in clinical practice. Functional status reflects the ability to fulfill daily activities (physical, social, and emotional), while HRQoL takes into account the subjective, personal aspects of the impact, the health status on the quality of life of the individual (5).

Ulcerative colitis (UC) is a chronic disease with an unpredictable evolution, marked by episodes of both activity and remission. Patients with UC are affected not only by the physical effects of the disease, but also by the impact it can have on the QoL.

The instruments of assessing HRQoL are represented by general questionnaires, and disease-specific questionnaires. These questionnaires assess HQoL by calculating a score on account of the patient’s perception on HRQoL. The HRQoL score reflects the evaluation of the life lived in a specific state of health, having the patient himself as the primary source of information.

The aim of this study is to evaluate HRQoL in ulcerative colitis patients as opposed to the general population and to identify the significant changes of HRQoL in accordance with the specific progression of UC.

MATERIAL AND METHODS

A prospective case-control analytic study has been conducted inside the Gastroenterology and Hepatology Center in Iași over a period of 50 months (January 2010 - February 2012). The study included 189 patients, assigned to 2 groups: Group A, containing 105 patients with UC, and control Group B, containing 84 patients without UC.

The UC diagnostic was supported by complete hematological and biochemical tests and colonoscopy and, also, histopathologically. The activity of the disease was quantified by means of the Truelove - Witts score.

Patients were evaluated based on questionnaire IBDQ-32. This is one of the most widely used HRQoL evaluation questionnaires. It contains 32 questions grouped into four areas: gastrointestinal symptoms (diarrheic stools, abdominal pains, rectal bleeding, tenesmus), systemic symptoms (fatigue, sleep disorder), emotional functions (depression, irritability, anger), and social functions (absenteeism, affected social status). The answers range from 1 (the worst) to 7 (the best). Total score ranges from 32 to 224. The lower the score, the more HRQoL is affected (5).

Patients with UC were asked to send the IBDQ-32 questionnaire to someone they know, without UC, of the same age and sex, in order to make up the control group.

In order to process and interpret the data, MS Excel, EpiInfo, and SPSSS computer software were used. The interpretation also contained a descriptive analysis and the following tests: \( \chi^2 \)-square, t-Student. The differences were considered significant when \( p \leq 0.05 \).

RESULTS

Structure of the studied group

The group of 105 patients diagnosed with UC consisted of 42 men (40%) and 63 women (60%). The average age was 42.67 (+/- 13.74), the ages of 22 and 63 being the extremes. Most of the patients were living in an urban area - 70 (66%), with only 35
(33%) of them living in a rural area. The non-smoking status was predominant, 60 patients being non-smokers (57.14%), while 45 patients were smokers (42.85). The disease duration had an average of 29.3 months (+/- 30.47), while the number of previous relapses was 3.74 (+/- 3.88).

Ninety-one percent of the patients with UC completed the IBDQ-32 during the active period of the disease. Proctitis was present in 2.94% of the cases (3 patients), left-colitis in 71.1% (74 patients), and pancolitis in 26% (27 patients) of the cases. A mild activity of the disease was present in 32 patients; 62 presented a moderate activity, while only 3 presented a severe activity.

**The IBDQ-32 Score**

The QoL score ranged between 90-180. For proctitis: 80-190, for left-colitis: 120-200, and pancolitis 70-160 (p<0.05). Patients with severe forms had a lower score (50-140) as compared to the patients in remission (130-180) (p<0.01) (tab. I). The number of previous relapses was significantly influenced QoL (p<0.05); patients with previous active disease had a lower QoL. An important factor which negatively influenced QoL was also the long course of the disease, the results showing an average of 29.3 months (p<0.05) of disease evolution.

Age, sex distribution, smoker/non-smoker status and the living area (urban/rural) have not shown significant statistical differences. Also, the extension of the lesions has not influenced significantly the statistics regarding the QoL (tab. II).

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**TABLE I**

<table>
<thead>
<tr>
<th>HRQoL in accordance with the specific progression of UC</th>
<th>Group A (UC) Activity period</th>
<th>Group B (control)</th>
<th>Group A (UC) Remission period</th>
<th>Group B (control)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRQoL</td>
<td>145.23 ±30.27</td>
<td>201.34 ± 20.16</td>
<td>165.23 ±20.27</td>
<td>201.34 ± 20.16</td>
</tr>
<tr>
<td>p</td>
<td>p&lt;0.05</td>
<td></td>
<td>p&gt;0.05</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE II**

<table>
<thead>
<tr>
<th>Clinical and evolutive characteristics and HRQoL</th>
<th>UC</th>
<th>HRQoL</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex: M</td>
<td>42</td>
<td>117.35± 32.5</td>
<td>p&gt;0.05 (NS)</td>
</tr>
<tr>
<td>F</td>
<td>63</td>
<td>104.74 ± 42.26</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>42.67 ±13.74</td>
<td>112.45±51.5</td>
<td>p&lt;0.05 (r = 0.230)</td>
</tr>
<tr>
<td>Living area: urban/rural</td>
<td>70</td>
<td>114.56 ±52.14</td>
<td>p&gt;0.05 (NS)</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>123.35±71.15</td>
<td></td>
</tr>
<tr>
<td>Status: smoker</td>
<td>45</td>
<td>144.53 ±53.27</td>
<td>p&gt;0.05 (NS)</td>
</tr>
<tr>
<td>non-smoker</td>
<td>60</td>
<td>131.37±30.43</td>
<td></td>
</tr>
<tr>
<td>Disease duration (months)</td>
<td>29.3 ±30.47</td>
<td>165.23±20.27</td>
<td>p&lt;.05 (r = 0.475)</td>
</tr>
<tr>
<td>Number of previous relapses</td>
<td>3.74±3.88</td>
<td>142.34±25.26</td>
<td>p&lt;0.05 (r = 0.521)</td>
</tr>
<tr>
<td>Extension: proctitis</td>
<td>3</td>
<td>112.33±40</td>
<td>p&gt;0.05 (NS)</td>
</tr>
<tr>
<td>Left-colitis</td>
<td>74</td>
<td>132.27±20.46</td>
<td></td>
</tr>
<tr>
<td>pancolitis</td>
<td>30</td>
<td>70-160</td>
<td></td>
</tr>
<tr>
<td>Activity: remission</td>
<td>8</td>
<td>165.23±20.27</td>
<td>p&lt;0.01(remission/severe)</td>
</tr>
<tr>
<td>mild</td>
<td>32</td>
<td>143.65±40.2</td>
<td></td>
</tr>
<tr>
<td>moderate</td>
<td>62</td>
<td>123.15 ±23.21</td>
<td></td>
</tr>
<tr>
<td>severe</td>
<td>3</td>
<td>80.33±30.67</td>
<td></td>
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</tbody>
</table>
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DISCUSSION

The QoL evaluation in inflammatory bowel disease has become a primary concern and a major objective in recent studies. It serves to appreciate the efficiency of the treatment, helps describe the nature and gravity of the disease and also to assess the prognostic.

IBD has a negative impact on all aspects concerning QoL. The emotional behaviour is mainly disturbed, triggering the development of depression and anxiety during and after the active disease periods (6, 7).

The present study identifies a group with an altered QoL: a long period evolving disease, with an early age debut, with frequent, severe and extended activity periods that would gain benefit after psychiatric counseling.

The importance of the HRQoL is thus confirmed in IBD patients, especially in those with UC. Our results are similar to other studies in which the same test or different HRQoL tests were applied.

An USA study established that the main concern in patients with IBD is related to the doubtful disease progression, the drugs side effects, the impact of the disease on the energy level, the risk of surgical correction, the possibility of a colostomy, the fear of being a “burden” for others and the risk of possible neoplasia. The group of women, also preoccupied with the physical aspects, and younger people were interested in how the disease will influence their sex life (8). In general, women manifested concerns and fears during the active period of the disease (9).

For patients in the active phase, the main attention is directed towards the improvement of the overall status. In order to achieve it, suitable medical and surgical treatment can be used but also through professional psychological and psychiatric support.

Some studies reveal that even patients in remission state may have negatively influenced QoL (10). The main concerns include the side effects of the medication, self esteem and the risk of an evolving neoplasia.

The symptoms frequency is and will remain the main factor to influence QoL. The first diagnostic age doesn’t seem to influence HRQoL, but significant inversely proportional correlations with the overall duration of the disease were observed (the longer the progression was, the lower the HRQoL indexes) (11).

Moreover, it has been proven that IBD patients are more likely to develop depression and anxiety as compared with the general population. These findings are associated mostly with the symptoms frequency, the undergoing invalidity and the poor nutritional status (12). The intensity of the psychic disturbance seems to be linked to the severity of the illness but the psychic factors do not seem to have a major influence on the progression of the disease (11).

The overall perception regarding the health status in UC patients is more pessimistic as opposed to the general population as the patients feel more susceptible to the probability of getting sick. They must live with a potentially handicapped perspective, the “burden” sensation for others, which may affect in time the QoL and even help develop major psychic illness. They are confronted with everyday stigmatization, fear and repulsion, frequently describing feelings of discomfort and disability. There are also studies proving a decrease in the sexual activity.
CONCLUSIONS

Patients with UC have a significantly influenced QoL as compared to the general population of the same age and sex. A younger age debut, associated morbidity, and medication affect the patients not only physically but they also limit their social life and their educational, professional and emotional activity.

Although HRQoL is influenced in all UC patients, there are few patients with HRQoL similarly to the general population. Identifying the proper factors (social insertion, medication, etc.) might help improve HRQoL in UC patients.

Therefore, IBDQ-32 has proved to be an efficient test in detecting categories with low HRQoL. HRQoL evaluation helps identify patients in need of professional support.

REFERENCES