



THE PREVALENCE AND QUALITY OF LIFE IN PATIENTS WITH GASTRIC AND DUODENUM ULCER IN KYRGYZSTAN

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ABSTRACT

Statistical data on incidence and prevalence of gastric and duodenum ulcers in adults and children of Kyrgyz Republic were analyzed. The quality of life was studied in 32 patients with peptic ulcer disease. The licensed Questionnaire SF-36v2™ was used, and the research results revealed that quality of life parameters in patients with gastric and duodenum ulcer were severely impaired on all scales of the Questionnaire, as compared to control group.

The hospitalized patients with gastric and duodenum ulcers willingly worked with the SF-36v2™, the general questionnaire on quality of life. Indicators of the quality of life physical component in patients with peptic ulcer disease were more reduced (37.18%) than those of mental component (to 33.62%). The most pronounced decrease was recorded on "Bodily Pain" scale and the "Role-Physical" scale (by 39.77%), as well as "Vitality" (by 49.46%) and "Role-Emotional" (by 35.79%). For the practical purposes, the quality of life Questionnaire SF-36v2™ can be implemented for the assessment of dynamic changes in the state of health of a patient during treatment, which is an indicator of quality health care provision.

KEYWORDS: gastric and duodenum ulcer prevalence, quality of life, SF-36v2™ Questionnaire, peptic ulcer disease.

INTRODUCTION

The problem of peptic ulcer disease among the population is now very relevant due to the high frequency of its occurrence in the world. In Kyrgyzstan, according to the National Health Information Centre (Bishkek, Kyrgyzstan) the number of patients with ulcers tends to decrease: from 2000 to 2009 the absolute number of patients decreased from 18,779 to 14,327; the number of patients with newly diagnosed ulcer decreased from 2971 to 1989. However, a growing incidence in the Southern Kyrgyzstan, both among children and adults, was recorded [Alym-

baev E., Kozhonazarov K., 2000; Zhumabayev M. et al., 2007].

Chronic, recurrent, severe complications may lead to early disability of children, and the lack of effectiveness of the conventional therapy elevates them to the status of not only medical, but also social value [Filipenko P. et al., 2009].

The sociomedical and biological significance of this problem is due to the fact that in 40-50% of ulcer disease cases in adults the onsets were in childhood, contributing to the formation of severe disease leading to disability and invalidation [Eshbaev A., 2006].

With regular exacerbations the patient completely loses the ability to work. Pain and dyspeptic symptoms, neuroticism, 3-4 week-long

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stay in asthenohypochondriac syndrome/asthenovegetative syndrome worsened the quality of life [Novik A., Ionova T., 2007]. According to definition of the International Quality of Life Research Center (St. Petersburg, Russia), the quality of life (QOL) is an integral characteristic of the physical, psychological, emotional and social functioning of healthy or sick person, based on his/her subjective perception [Novik A., Ionova T., 2004].

The QOL questionnaires are tools allowing the doctor to monitor the dynamics of a disease and the patient treatment course [Rosenstock S. et al., 2003; Moldobaeva M. et al., 2008].

The purpose of study was to assess and rate ulcer disease-related statistics among the Kyrgyz population and the QOL in patients with gastric and duodenum ulcer by SF-36v2™ Questionnaire.

MATERIAL AND METHODS

The study involved 32 gastric ulcer patients and 12 patients with duodenal ulcer. The patients were treated at the Department of Gastroenterology of the National Hospital of Health Ministry (Bishkek, Kyrgyzstan). The age of patients ranged from 17 to 81 years. Amongst all the patients there were 16 men (50%) and 16 women (50%). The disease duration ranged from 2 to 5 years in 9 patients (28%), from 6 to 15 years in 6 patients (12%), and more than 15 years in 4 patients (12%); the disease was firstly diagnosed in 13 patients (40%). In 15 patients the ulcers were

located in the stomach and among other 15 patients in the duodenum. In two patients there was a double localization of ulcers. Peptic ulcer disease in all 32 diagnosed patients was confirmed by clinical studies and endoscopy. The control group was represented by 32 respondents; these Bishkek residents were at the age from 40 to 88.

To study the QOL we used the licensed Questionnaire SF-36v2™ developed by J. Ware and colleagues in 1993. The Questionnaire contains 36 questions grouped into eight domains: “Physical Functioning” (PF), “Role-Physical” (RP), “Bodily Pain” (BP), “General Health” (GH), “Vitality” (VT), “Social Functioning” (SF), “Role-Emotional” (RE) and “Mental Health” (MH). The Questionnaire SF-36v2™ provides a quantitative characterization of QOL criteria. Scoring is performed using licensed software. Indicators can range from “0” to “100”, while “100” is the best possible value [Novik A., Ionova T., 2007].

Statistical analysis of the material was carried out using a special copyright license, package of statistical programs, Scoring Software 2.0 and Excel 5.0. The results were considered significant at the level of $p < 0.01$.

RESULTS AND DISCUSSION

The research results showed that QOL parameters in patients with gastric and duodenal ulcer were reduced, as compared with the QOL in control group patients. The reduction in terms of QOL was associated with both physical and

TABLE.

Quality of life average values in patients with gastric and duodenal ulcer and the control group

Quality of life indicators	Patients (n=32)	Standard deviation	Control group (n=32)	Standard deviation	p
Physical Functioning	78.87	22.39	90.03	17.69	<0.01
Role-Physical	51.14	25.85	84.91	18.11	<0.01
Bodily Pain	44.90	23.66	85.03	20.17	<0.01
General Health	57.85	17.92	74.72	19.94	<0.01
Vitality	49.46	23.96	71.77	20.43	<0.01
Social Functioning	66.13	23.09	84.48	22.57	<0.01
Role-Emotional	52.96	32.17	82.47	20.09	<0.01
Mental Health	60.00	15.42	74.83	21.44	<0.01

mental functioning. Mean values of QOL in patients with gastric and duodenal ulcers for 8 scales of the Questionnaire SF-36v2™ ranged from 78.87 ± 22.39 (VT scale) to 44.90 ± 23.66 (BP scale) (Table).

The patients' QOL as compared with that of the control group was on average reduced by 28.79% and ranged from 47.19% (BP scale: 44.90) to 12.40% (PF: 78.87). The greatest QOL decrease in patients with peptic ulcers, except for the parameter of BP, was identified by the following scales: RP (by 39.77%), VT (by 49.46%), RE (by 35.79%) (Table).

The indicators in GH, SF, and MH scales were also significantly decreased by 22.58%, 21.72% and 19.82%, appropriately, as compared to indicators recorded in the control group ($p < 0.01$) (Figure 1).

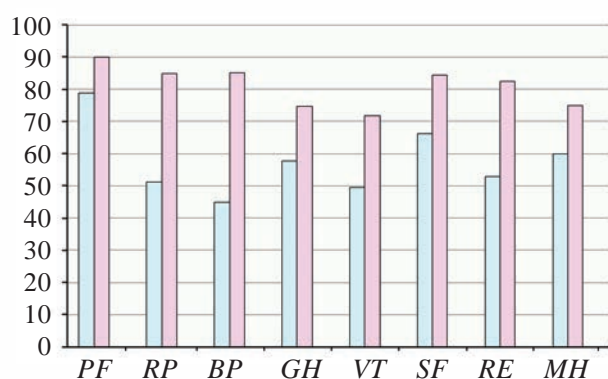


FIGURE 1. Quality of life indices in patients with gastric and duodenal ulcer. □ GU & DU; □ Control Group

CONCLUSION

Based on the results obtained for QOL in peptic ulcer disease patients the following conclusions might be drawn:

- the QOL in patients with gastric and duodenal ulcer is significantly reduced as compared with the control group patients on all scales of the QOL Questionnaire SF-36v2™.
- indicators of the physical component in patients with peptic ulcer disease were more distinctly reduced (37.18%) than the indices of QOL mental component – up to 33.62%, with the greatest decrease recorded on a BP scale, and the scales of RP (by 39.77%), VT (49.46%) and RE (to 35.79%) (Figure 2).
- for the practical purposes, the QOL Questionnaire SF-36v2™ can be implemented to assess dynamic changes in the health state of a patient during treatment, which is an indicator of the quality health care provision.

Comparing the reduction rates of mental and physical components of QOL in peptic ulcer patients with those observed in the control group, we found that reduction of the physical component in patients with gastric and duodenal ulcer was more expressed (37.18%) than the mental component of QOL (18.36%) ($p < 0.01$) (Figure 2).

Thus, in patients with ulcer the significant changes of the studied indices were recorded and, particularly, in such indices as "Role-Physical", "Vitality", "Role-Emotional".

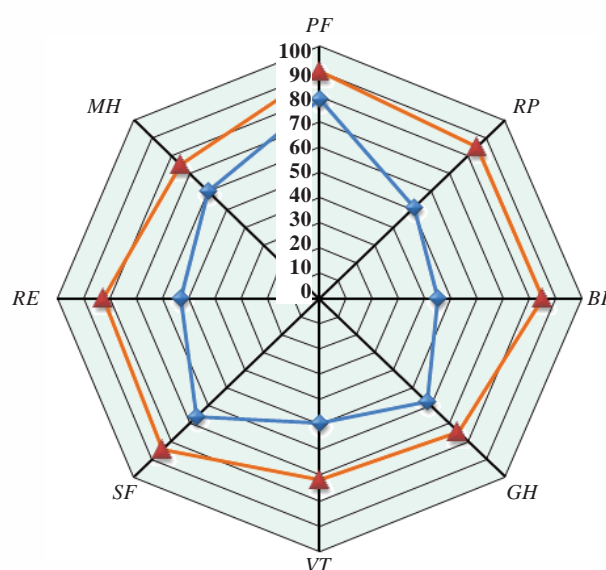


FIGURE 2. Quality of life profile in patients with gastric and duodenal ulcer compared with the control group. ■ GU & DU; ■ Control Group

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