Public Health Service

Characteristics and Evaluation of Life Quality in Patients Operated on for Peritonitis

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Abstract
When analyzing life quality in patients operated on for peritonitis 6 months after surgery we noticed a characteristic pattern, namely, the group of patients who received postoperative rehabilitation complex noted faster recovery of physical and emotional state in comparison with the group of patients who did not underwent any rehabilitation. It is important to restore not only the physical components of health but also mental ones, which have a slower rate of recovery in the comparison group.

Keywords
peritonitis; life quality; rehabilitation

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Problem statement and analysis of the recent research

One of the informative indicators of treatment outcome is the determination of life quality, which is widely used in medical research to determine the prognosis of the disease.

The analysis of life quality as an integral index of physical, social, emotional and psychological functioning of the patient allows comparing the effectiveness of different methods of treatment and rehabilitation programs and has become an integral part of modern comprehensive randomized studies in various fields of medicine. This is an objective indicator based on the subjective perception which characterizes the difference between the patient’s expectations and his/her achievements. The less pronounced the differences, the higher life quality is [1].

The objective of the research was to assess life quality in patients with peritonitis 6 months after surgery.

1. Materials and methods
154 patients who were operated on local, diffuse and general peritonitis during 2008-2011 in the Ivano-Frankivsk Central City Clinical Hospital were examined and surveyed 6 months after surgery. All the patients were divided into two groups: the main group included patients who underwent the proposed rehabilitation procedures in the early postoperative period and the comparison group included patients who underwent the rehabilitation according to clinical protocols [2].

The comparative analysis of life quality using a questionnaire SF-36 in patients operated on for peritonitis showed that all the indicators of life quality in patients of the main group 6 months after surgery were higher than those in the comparison group [3].

Statistical calculation of the results was carried out using the spreadsheet program MicrosoftOffice Excel as well as the statistics software for statistical analysis (Statistica 6.0). The results of descriptive statistics are presented as the mean ± standard deviation. The reliability of differences between statistical studies was evaluated using the Student’s t test. The validity of the method was studied through the determination of the sensitivity, specificity and diagnostic efficiency of the method.

2. Results and Discussion
In local peritonitis, despite the higher levels of life quality the difference in all indicators between both groups was statistically insignificant (p>0.05) and was slightly different (Fig. 1).

In diffuse peritonitis significant deviation of life quality indicators was observed between both groups (Fig. 2). The index of physical functioning (PF) in the main group was 86.46±2.54 points, while in the comparison group, it was 15.06% lower – 70.23±3.93 points (p<0.01). The lowest indicator was that of physical role functioning (RP) in patients of the comparison group who did not underwent any rehabilitation – 65.91±3.10 points being 23.77% lower compared to the main group – 86.46±3.0 points (p<0.001).

The indicator of bodily pain (BP) reduced in patients of both groups as well: in the comparison group it reduced to 73.18±3.25 points being 14.33% lower than in the main group – 85.42±2.08 points (p<0.01). The indicator of general health (GH) in patients of the control group was 13.38% lower than in the main group (71.82±3.22 points vs. 82.92±2.02 points, p<0.05).
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When comparing the physical components of health in the main group (341.25±4.66 points) and the comparison group (281.14±7.22 points), its reduction by 17.6% was observed in the comparison group (p<0.05).

Among the indicators of mental health in patients of the comparison group, the lowest one was the indicator of emotional role functioning (RE) – 60.61±5.65 points being 29.61% lower than in the main group – 86.11±3.43 points (p<0.01). In the control group, the indicator of mental health (MH) was low – 61.64±1.80 points vs. 86.50±1.98 points in the main group or 28.74% lower (p<0.001).

According to the scale of social functioning (SF) a decrease in life quality by 12.58% (64.20±3.11 points) was observed in the comparison group and in the main group the indicator was 73.44±3.22 points (p<0.05). The indicator of vitality (VT) in the control group was 66.67±3.74 points being 17.73% (p<0.01) lower than in the main group – 81.04±1.83 points.

There was a significant difference in mental health indicators between both groups – 327.09±5.68 points in the main group and 253.22±9.13 points in the comparison one being 22.58% lower (p<0.001).

Larger deviation in the indicators of the questionnaire 6 months after surgery between both groups was observed in general peritonitis (Fig. 3) with a statistically significant difference (p<0.001). The greatest reduction in the physical components of health was noted in the scale of RP – 58.04±3.06 points in the control group vs 85.83±2.59 points in the main group or the reduction by 32.38% (p<0.001). According to the scale of life quality the indicator of PF in the main group was 86.0±1.36 points, while in the comparison group it was 65.36±1.94 points being 24.0% lower (p<0.001).

The indicator of BP in the comparison group differed from that in the main group – 62.14±2.50 points vs. 85.0±1.71 points being 26.59% lower. There were significant differences in the indicators of GH between both groups. In the comparison group, it was equal to 60.54±2.97 points being 26.02% lower than that in the main group – 81.83±1.83 points.

In terms of mental health, the lowest indicator was that of RE – 47.62±4.2 points in the comparison group versus 84.44±3.09 points in the main group or 43.60% lower. The indicator of SF was 52.68±3.07 points in the comparison group and 72.50±2.43 points in the main group (the difference – 27.34%). The indicator of VT in the comparison group was 51.93±3.07 points being 33.25% lower than in the main group – 77.80±2.93 points. The difference in terms of mental health in the comparison group was 27.52% lower compared to the main group – 62.14±1.78 and 85.73±1.90 points, re-
The physical components of health in the comparison group was 338.67 ± 3.82 points being 27.34% lower than in the main group—246.07 ± 4.93 points (p<0.001). The mental component of health in the comparison group was 214.37 ± 6.19 points and 320.48 ± 5.46 points in the main group being 33.11% higher than in the comparison group (p<0.001).

Thus, having analyzed life quality indicators in patients operated on for diffuse and general peritonitis 6 months after surgery, the following conclusions can be made.

3. Conclusions

Life quality in patients with diffuse and general peritonitis who underwent rehabilitation in the early postoperative period was significantly higher and statistically significant compared to that in patients of the comparison group.

Despite the fact that some indicators of life quality in patients with local peritonitis were inaccurate, the difference in the physical components of health between the main group (349.04 ± 4.91 points) and the comparison group (330.83 ± 4.77 points) was statistically significant (p<0.05).

The largest deviation in life quality indicators 6 months after surgery in patients operated on for local, diffuse and general peritonitis was observed in the indicators of RP and RE with statistically significant indicators in case of diffuse and general peritonitis.

4. Prospects for further research

We plan to conduct further analysis and characteristics of life quality in patients with peritonitis in the remote periods.

References


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