

# A clinical psychologist's perspective of mental disorders in patients of 70 years of age or more, who underwent digestive tract cancer surgeries

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## Abstract

**Introduction:** Behavioural and psychological disorders in surgical patients treated for malignant diseases are not always adequately appreciated and often neglected. However, they are very important in the therapeutic process because they may severely disturb physical and psychological rehabilitation, the patient's effective struggle with malignancy, environmental relationships and quality of life. Professional preoperative psychological assessment is necessary to facilitate therapy for malignant diseases in those patients who are specifically exposed to a severely stressful situation.

**Aim:** To investigate the incidence of depression, hallucinations and anxiety in patients undergoing surgery for malignancy of the digestive tract. The influence of those disorders on the period of hospitalisation, cooperation with medical staff and postoperative quality of life was analysed.

**Material and methods:** A routine program of psychological and psychiatric care for patients with malignancy, who undergo extensive surgical procedures, was implemented in our department several years ago. The program allows for identification of patients with a high risk of psychiatric disorders to provide them with special psychological support. Sixty-nine patients with advanced malignancy were followed after the surgery between 2009 and 2010. All were examined by a professional psychologist. A QLQ C-30 (EORTC) questionnaire was used to assess the quality of life.

**Results:** Psychotic disorders were present in 53.6% of examined patients. Depression was dominating (57%), followed by anxiety (28%) and hallucinations (15%). The mean hospital stay was different between those, respectively, with and without psychotic disorders (17 days vs. 15 days). Quality of life index for patients at risk was 3.8 vs. 5.1 for more psychologically stable patients.

**Conclusions:** Approximately 50% of patients undergoing surgery for malignant diseases develop severe psychotic disorders in the postoperative period. Preoperative psychological assessment seems to be extremely useful in providing adequate postoperative psychological support for individual patients.

## Introduction

The relationship between surgery and psychology, despite the constant development of both fields, is not common or apparent. A surgeon rarely takes care of a patient's mental state through psychiatric or psychological consultation. Literature shows that among oncological patients up to 50% show signs of suffering from mental problems while undergoing surgery (delirium, post-surgical psychosis, disturbances in consciousness). Even though only about 20% of all cases of depression are diagnosed at surgery wards, and less are treated,

it is likely that the number of patients who suffer from depression is much higher [1–3].

There are a few reasons for this. Firstly, the character of a surgeon's job (many hours spent in the operating theatre) limits the ease and frequency of patient contact. Moreover, surgeons only see themselves as operators, leaving a patient's mental problems to other specialists (interns etc.). A lack of training and courses in the education program results in limited knowledge about mental disorders. As a result, surgeons see de-

pression as a normal reaction to a disease and wrongly decide against prescribing antidepressants during the period in which their patients are undergoing surgery.

Additionally, surgeons may be reluctant to suggest that their patients suffer from mental disorders [1, 4]. A major cause of poor psychological care is the shortage of interdisciplinary teams, which include interns or psycho-oncologists at surgical oncology wards.

According to the president of the National Health Insurance Fund, the provision of psychological treatment is not a prerequisite for signing a contract with a ward (regulation Nr 90/2012/DSOZ, 11 December 2012). Only paediatric surgery wards which specialise in burns and permanent injuries require a psychologist in the team. That is why psychological treatment in hospital wards is neglected by the payer, resulting in the current patient care regime, where psychological health care is considered unnecessary. This goes against literature, which stresses the need for an interdisciplinary and holistic approach to patient treatment. Diagnosis of cancer causes tremendous fear. It is a critical and traumatic event. Skilful therapeutic processes, which respond to the patient's needs, make the therapy less emotionally traumatic and reduce the risk of post-surgical mental disorders. Literature shows that a considerable percentage of patients undergoing cancer surgery show signs of mental disorders. Only proper diagnosis and treatment (psychological therapy, pharmacotherapy) guarantee an improvement in the quality of life after surgery and ability to cope with the disease [2, 5].

For elderly patients, terminal disease often exceeds their capacity to understand, adjust and accept. Several health care problems need to be taken into consideration. One of them is the loneliness caused by the recent or previous loss of a close person, or social isolation. This results in problems for both the patient and the surgical ward as an institution. From the patient's perspective, their condition does not allow a return to their previous way of life and can lead to a profound fear, if they receive no support from family or friends. This can result in prolonged hospitalisation, increased somatic problems in order to stay in the hospital, and eventual institutionalisation (medical care facilities, hospices). Additionally, a lack of motivation to recover, coupled with little progress in post-surgical therapy and limited understanding of their disease, surgery and prognosis, can all enhance mental disorders.

Another problem among many oncological patients with colorectal cancer after surgery and having an artificial stoma is a lack of acceptance of this kind of operation. The result of no prior psychological adaptation to this new situation is often an unwillingness to learn about the necessary hygiene and care procedures and

even dependence on the patient's family in this matter. Some patients who do not deal well with this problem have to be admitted to the hospital because of complications following bad or inadequate stoma care.

Social isolation can be another problem following no or insufficient prior psychological adaptation as the fear of others discovering the fact that the patient has a stoma may cause a feeling of rejection. The first symptoms of these psychophysiological problems can often be noticed as soon as in the early post-surgical period and may be represented by, for example, a reluctance to participate in rehabilitation procedures and a lack of understanding of the necessity of rehabilitation and psychological therapy [6]. Another problem connected with having a stoma, though not so common among this group of patients, is the negative influence on the sexual domain [7].

This leads to a vicious circle, which makes it difficult to verify the cause and effect.

On the other hand, literature shows that surgical risk amongst the elderly in facilities with considerable experience is no higher than amongst other age groups [8]. Research by Jonathan *et al.*, published in the "New England Journal of Medicine", analysed surgical risk and mortality amongst patients aged between 65 and 99 years over a 10-year period from 1999 to 2008. Their findings indicate a considerable decrease in mortality in high-risk surgeries (extended oncological surgeries, cardiac surgeries) amongst the analysed group [9, 10].

## Aim

The aim was to distinguish and take special care of patients from a group at risk of mental disorder. The research presented analysed the frequency of mental disorders, such as depression, delirium and anxiety disorders, amongst patients of 70 years of age or more, who underwent digestive tract cancer surgeries. The influence of the above-mentioned factors on the hospitalisation period, cooperation with hospital staff, and post-surgical quality of life were assessed.

## Material and methods

The analysed group consisted of 69 patients diagnosed with cancer, who underwent resection surgeries of the large intestine, pancreas, stomach, rectum or gall-bladder (Figure 1). All patients underwent surgery in the Clinical Department of Gastroenterology Surgery and Transplantation at the Central Clinical Hospital of the Ministry of Internal Affairs in Warsaw in the period from 2010 to 2011. The age of the group is shown in Figure 2. Fifty-eight percent of this group were women and 42% were men. Patients showed various levels of awareness of their disease, which was assessed by the

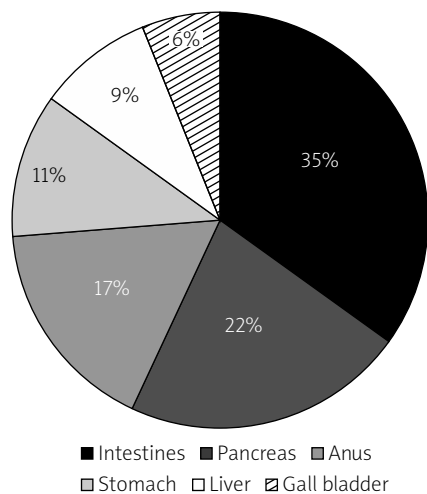


Figure 1. Cancer location

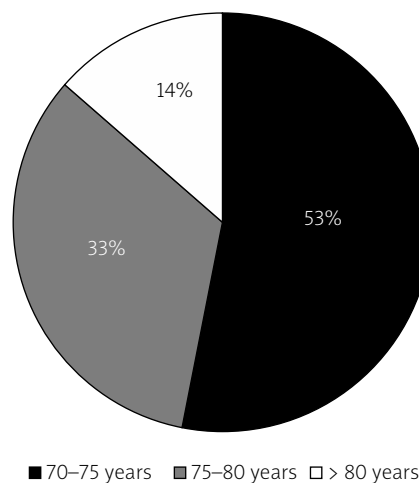


Figure 2. Age

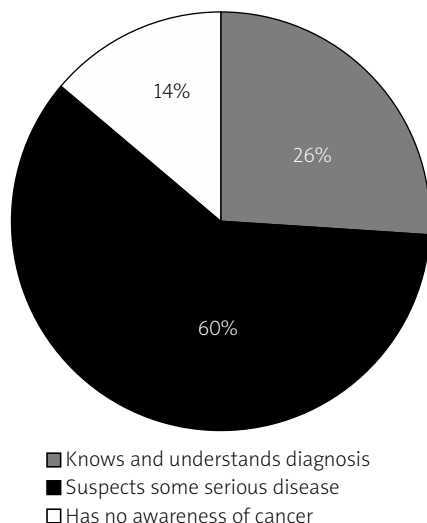


Figure 3. Cancer awareness

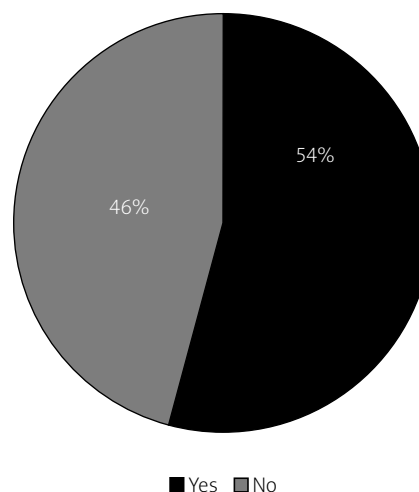


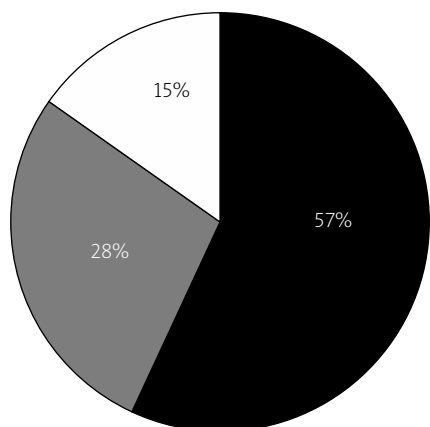
Figure 4. Occurrence of mental disorders (from surgical period until 3 months after surgery)

psychologist during the initial consultation (Figure 3). Each patient underwent psychological examination before surgery (when being admitted to the hospital) and was monitored after surgery. Additionally, patients, in order to evaluate their quality of life, filled out a QLQ c-30 (EORTC) questionnaire and Spielberger's State/Trait Anxiety Inventory (STAI). This examination, due to the patients' limited physical capacity, was limited to examining anxiety as a state currently experienced (X-2). Depression disorders were diagnosed on the basis of interviews with patients and their families. The analysis also concerned cooperation with hospital staff (evaluated by the lead doctor) and the period of hospitalisation (the number of days). The group did not

include patients who had to be re-operated or those with a previously diagnosed mental disease. To confirm differences amongst the examined, all findings underwent statistical analysis.

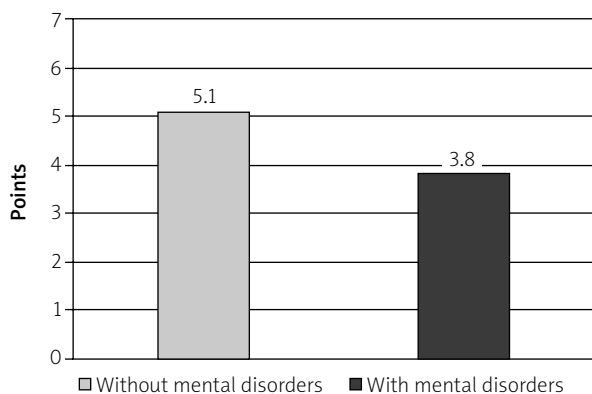
### Results

Mental disorders were diagnosed among 53.6% of patients (Figure 4) with depression dominating all disorders (57% of the group). Anxiety disorders concerned 28% of the group, and delirium 15% (Figure 5). The above disorders were diagnosed based on psychological examination and observations. Due to the group's age, the paper-pencil method was not applied.

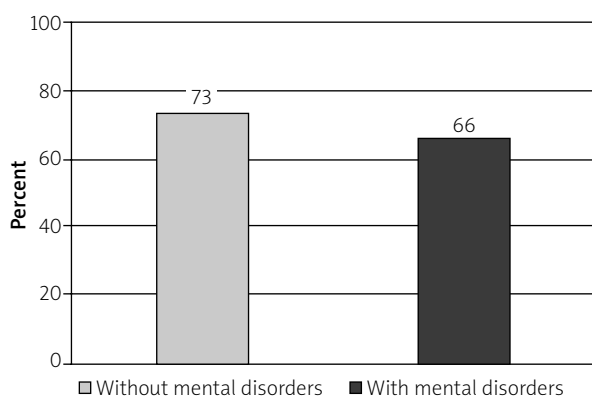


■ Depression ■ Anxiety disorders □ Delirium

**Figure 5.** Type of mental disorders (based on psychological examination and observation)

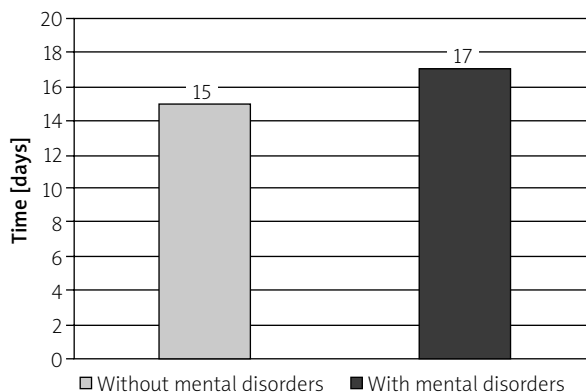


**Figure 7.** QoL index (QLQ-C30 EORTC)

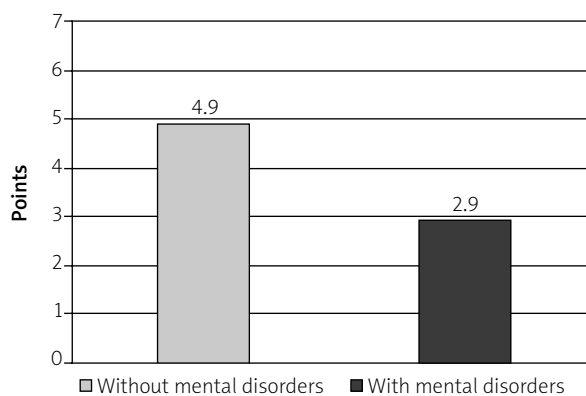


**Figure 9.** Cooperation with hospital staff

The average time spent in hospital for the group without disorders (A) and with mental disorders (B) amounted, respectively, to 15 and 18 days (Figure 6). The average QoL indicator for group A was 51.8, where-



**Figure 6.** Average time spent in hospital



**Figure 8.** Health status (QLQ-C30 EORTC)

as for group B it was 42.6 (Figure 7). The average health status for group A was 4.9, whereas for group B it was 2.9 (Figure 8). According to the lead doctor, cooperation was observed among 73% of patients in group A, whereas in group B it was 66% (Figure 9).

## Discussion

The research findings presented above prove the hypothesis that among oncological surgery patients, mental disorders are a considerable problem. It was observed that 53.6% of patients suffered from this type of disorder. Fifty-seven percent suffered from depression. These observations correspond to the literature, which proves that depression seems to be the main problem amongst oncological patients [1, 2, 4, 11]. It should be noted that it is not only surgery that influences a patient's mental state. A considerable number of patients end up in the surgical ward after a long diagnostic process [12]. Prolonged anxiety periods, numerous and often painful examinations and a necessity to break the intimacy barrier (endoscopy, biopsy) are just a few of

the reasons for a negative state of mind. Other factors also play important roles; chemotherapy and radiotherapy before surgery are well known to influence a patient's mental state [4, 6]. Amongst the patients with mental problems, 28% suffered from anxiety disorders. They reached a high score on the scale of anxiety as a state currently experienced, which means a high intensity of anxiety at the moment of examination.

It seems that anxiety disorders are the result of both previous experience related to the disease and surgery. They are present from the first observation of the first symptoms of the disease, before diagnosis. The intensity of anxiety amongst some patients decreases after diagnosis, if it is negative (relieving the tension related to waiting for the diagnosis). Others react adversely and the intensity increases, triggering the thought of inevitable death [13].

Disturbances in consciousness are a frequent problem amongst elderly people in intensive care wards, especially after large-scale and long surgeries [14]. Patients with alcohol problems fall into the higher risk group too. Disturbances in consciousness most often take the form of delirium, obfuscation and hallucinations. A patient lacks time and space orientation, is unaware of their state of health and is often aroused and aggressive. This problem is most frequently observed in cardiac surgical wards, where up to 80% of patients have such disorders [15–18].

Amongst the examined group, delirium occurred in 10 patients, which accounts for 15% of the group. Disorders were short-lived (2–4 days), temporary and mainly concerned the eldest patients. They were treated pharmacologically (haloperidol, relanium, hydroxyzine) and psychologically, including cooperation of the patient's family. The period of time spent in hospital was an important differentiator between the group of mentally stable patients and the group with mental disorders. The 0.05 relevance level showed that mental problems (depression, anxiety and psychotic disorders) prolonged a patient's stay in hospital. This was mainly due to difficult contact with the patient, who failed to provide clear information about their state of health. Moreover, physical therapy implemented in the later period, resistance to the therapy, somatic mental symptoms (various ailments often unrelated to the surgery and the disease itself) and a feeling of an inferior state of health compared to other patients, lead to prolonged stays in hospital [19, 20].

This variable correlates to cooperation with hospital staff. As was shown, patients with mental disorders cooperated to a lesser extent in the process of treatment and therapy. This concerns both a reluctance to obey a doctor's or nurse's advice and little physical

and mental activity (e.g. patients staying in bed all day and being disinterested in any activity, despite the improvement of their physical condition). Unfortunately, such attitudes are often described amongst oncological patients, who show a loss of will, interest and activity [2, 4, 18].

The biggest differences noticed amongst the compared groups were in the subjective assessments of their quality of life. As in anxiety state examinations, the quality of life questionnaire (QLQ C-30 EORTC) was limited to examining only the general quality of life indicator (QoL index). Patients assessed their state of health and quality of life on the 7 point scale from very bad to very good. The findings underwent qualitative analysis, which provided an interesting outcome. The group with mental disorders (B) assessed their quality of life considerably lower ( $p \leq 0.01$ ) than the emotionally stable group (A). The average score in this group was 3.8 compared to group B – 5.1. What seems surprising is the outcome of the state of health assessment (considerably lower among the group with mental disorders – 2.9). Group B assessed their state of health with an average score of 4.9.

Mental disorders change the patient's perception of their actual state of health. Patients exaggerate their symptoms relating to the disease and feel that their health is deteriorating. An assessment of health-related quality of life is underlined by literature as an important factor in the outcome of treatment. Quality of life plays an important role in the therapy of oncological patients and in many cases it defines the type of recommended treatment [21–24]. According to the rule that we treat not an organ but a person, various types of research are done to improve quality of life among oncological patients, with special consideration given to end-of-life patients [3, 13, 18].

## Conclusions

They all show the presence of mental disorders, and this emphasises the necessity for interdisciplinary treatment – oncological, surgical, psychological, psychiatric, therapeutic and occupational.

In our Surgery Department we run a psychological care programme to help patients after oncological surgeries. It is based on the following:

1. Preliminary psychological evaluation after detailed interview, standardised tests, conversation with the family.
2. Decreasing the preoperative stress using relaxation techniques, supportive conversations.
3. Continuation of supportive therapy in the early post-operative period, learning how to deal with the anxiety level.

4. Continuation of the psychological treatment, including the family to the therapy, education about life after surgery, secondary prevention of the disease.
5. When necessary, contacting the consulting psychiatrist (in cases of intensification of symptoms of depression or psychotic disorders).
6. Education concerning supportive groups, stoma, diabetes, breast cancer associations etc., learning the relaxation techniques.

Research shows that the occurrence of mental disorders during the surgical period determines a patient's post-surgical functioning. The above findings indicate the usefulness of an initial psychological examination amongst patients who qualify for oncological surgery, a necessity for multidisciplinary cooperation (psychologist, social nurse or social worker) and family care for elderly patients.

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