

^{1,2} Department of Nursing Science, Faculty of Nursing; Head: dr n. med. A. Chamienia,
Medical University of Gdansk..

^{3,4} Emergency Department; Head: A. Basiński, Associate Professor.,
Medical University of Gdansk.

ANNA MAŁECKA-DUBIELA¹, WIOLETTA MĘDRZYCKA-DĄBROWSKA²,
ROBERT SZYMCZAK³, ANDRZEJ BASIŃSKI⁴

Selected indices of life improvement in the elderly after cardiac surgery

**Wybrane wskaźniki poprawy jakości życia pacjentów w podeszłym wieku
po zabiegach kardiochirurgicznych**

The senility and the problems with it connected are one of the basic determinant of the today world. The ageing is a natural and irreversible process. In the demographic point of view polish society has been old since 1969. This research is an attempt to estimate an improvement of a quality of life among the patients over 65 years of age, who have circulatory system illnesses like coronary heart disease, mitral valve and aortic valve insufficiency. The cardio-surgery operation has been executed to all of these patients to lessen their clinical signs like pain and in this way to improve their quality of life. The conception of the quality of life emerged in the seventies in the polish medicine and was known as a Health Related Quality of Life. This conception means the estimation of a person's life situation during an illness and a treatment. The quality of life consists of the four major fields: physical state and movement efficiency, psychological state, social and economical conditions, somatic experiences. The scientists very often suggest to consider the other components to complete the conception of the quality of life, for example social relationships, spirituality and subcomponents like sexuality, body and self estimation. The quality of life succumbs the subjective estimation of an individual. The patients themselves are the best judges of their quality of life.

Generally it is well known, that the patients over 65 years old are more prone to have greater mortality after surgery, more complications, difficult post surgery course, long lasting rehabilitation. All of these is due to the multi organ changes typical for the ageing process. During the last decades the medicine has been searching for the best ways of evaluating the remote results of the patients' therapy. Thanks to the development of the modern techniques in the medicine more patients can be rescued and a life of the population is extended.

This research is an attempt to evaluate the improvement of the physical and the psychological state among the old age patients after the cardio-surgery operation. The components that influence the quality of life are also estimated in this work.

MATERIAL AND METHODS

The research has been conducted among 129 patients that have been chosen at random. There have been excluded from the research the patients with the psychological illnesses, in the terminal state, mentally handicapped and with dementia. The studies have been conducted from January 2001 to February 2002. All the patients have been treated in the Cardio-Surgery Clinic in the Medical University of Gdańsk. They have been the patients with coronary heart disease, mitral, aortic, tricuspid, valve insufficiency that have had cardio-surgery operation to improve their health condition.

There have been used two types of questionnaires in the research. The questionnaire consisting of 16 questions has been used to evaluate the sense of the quality of life – the variable independent X. There have been used subjective components of the quality of life as: the emotional experiences connected with the appearance of the illness and the decision to be operated, the expectations concerning patient's life and environment after the operation, the relation between a patient and the close environment and subjective feeling of the relation of the family to a patient.

The second type of questionnaire has been the SAQ (Seattle Angina Questionnaire). It was published in Lancet by Barkhoff in 1999. SAQ has 19 questions, that include 5 major categories that make it possible to evaluate the quality of life among the coronary heart disease patients.

The questionnaires have been completed by the patients themselves twice, once before the operation and the second time three months after the operation. In that way the efficiency of the treatment could have been estimated.

There has been used the structure index to describe the qualitative statistical features in the research. The results have been registered in Exel 5. The statistical investigation of the features connections has been based on four square and multi square contingency table. There has been used a non-parametrical chi-square test in the statistical analysis. Generally the number 0.05 has been the border value of the level of significance. The values under 0.05 have been considered statistical significant. It has been chosen 0.1 and 0.15 as a border value of the level of significance in few cases.

RESULTS

129 patients has taken part in the research. They have been 65 to 84 years old. The patients have been shared into two groups: the early senility group with the patients between 65 and 75 years old and the late senility group with the patients between 76 and 84 years old.

There have been more patients in the early senility group.

The Coronary Artery Bypass Grafting Surgery (CABG) have been executed among 74 patients, 35 patients have had the aortic valve replacement and 20 patients have had the mitral valve replacement.

The results have confirmed a statistical significant relationship between age and occurrence of pain or dyspnoea after hard physical activity, for the whole population before the operation ($p > 0.05$). It has been observed a great difference of the results in two groups of the examined patients. 47.7 % of the patient from the early senility group have answered that a hard physical activity had had been often provoking pain or dyspnoea. Surprisingly, only 13.6% of the patients from the late senility group have confirmed to have had pain or dyspnoea after hard physical activity before the operation. It has not been observed a statistical significant relationship between the age and an appearance of pain or dyspnoea after hard physical activity after the operation. These results suggest that the operation has soften the signs of the disease. Only 7.5 % of the patients from the early senility group have frequently had pain or dyspnoea after hard physical activity after operation.

It has been observed a statistical significant relationship for all of the patients between age and occurrence of pain and dyspnoea during dressing, before the operation ($p > 0.15$). 15% of the patients from the early senility group had suffered pain during dressing while nobody from the late senility group had suffered pain during dressing. It has not been observed any statistical significant relationships between age and occurrence of pain during dressing after three months after the operation. Only 3.7% of the patients from the early senility group has suffered pain during dressing after operation. The results for the late senility group have not changed. These results suggest that the operation has soften the pain.

The results have not confirmed a statistical significant relationship, for all of the patients, between associating pain with disease and being afraid about the operation. 53.1 % of the patients have associated pain with disease and have been afraid about the operation. 46.9% of the patients have associated pain with the disease but have not been afraid about the operation. 35.5 % of the patients have not associated pain with disease and have been afraid about the operation. 64.5 % of the patients have not associated pain with disease and have not been afraid about the operation.

It has been observed a statistical significant relationship, for the whole population after three months after the operation, between associating pain with disease and being afraid about the operation. 54.1% of the patients have associated pain with disease and have been afraid about the operation. 32.3% of the patients have not associated pain with the disease but have been afraid about the opera-

tion. 45.9 % of the patients have associated pain with disease but have not been afraid about the operation. 67.7 % of the patients have not associated pain with disease and have not been afraid about the operation.

The results have confirmed a statistical significant relationship, for the whole population before the operation, between being afraid about the heart attack and sudden death and making conscious decision about the operation ($p < 0.15$). 73.8 % of the patients have not made a conscious decision about the operation because they have been afraid about the heart attack and sudden death. Only 26.2 % of the patient have decided to be operated despite having been afraid about the heart attack and sudden death. 62.1 % of the patients have been rarely afraid about the operation, heart attack and sudden death and have not made a conscious decision about the operation. 37.9 % of the patients have been rarely afraid about the heart attack and sudden death and have made a conscious decision about the operation. 45.7 % of the patients that absolutely have not been afraid about the complications of the operation have made a conscious decision about being operated. 54.3 % of the patients that absolutely have not been afraid about the complications of the operation have not made a conscious decision about being operated. It has not been observed a statistical significant relationship, for the whole population after three months after the operation between being afraid about the heart attack and sudden death as a complications of the operation and making conscious decision about being operated.

It has been observed a statistical significant relationship, for the whole population before the operation, between a social activity of the patient and a feeling of being a burden for the family ($p < 0.001$). 38.6 % of the patients that have led poor social life have had a feeling of being a burden for their families. 61.4 % of the patients that have led poor social life have not had a feeling of being a burden for their families. 92.5 % of the patients that have led rich social life have not had a feeling of being a burden for their families. Only 7.5 % of the patients that have led rich social life have had a feeling of being a burden for their families. 94.7 % of he patients that have made new friends during their stay in hospital have not had a feeling of being a burden for their families, only 5.3 % of them have had such a feeling. It has not been observed a statistical significant relationship, for the whole population after three months after the operation, between a social activity of the patient and a feeling of being a burden for the family.

DISCUSSION

The results of this research have confirmed that the quality of life consists of many elements such as physical, emotional and social. Development of the invasive cardiology has changed the CABG patients choosing algorithm. Young patients with a good function of the left ventricle and isolated changes in the coronary arteries are treated by the departments of invasive cardiology. On the other side the group of patients over 70 and 80 years of age treated by the cardio-surgeons has grown up.

The results have confirmed a statistical significant relationship between age and occurrence of pain or dyspnoea after hard physical activity, for the whole population before the operation. Pain has a great influence on the quality of life especially for the psychical and psychological comfort. 47.7 % of the patient from the early senility group have answered that a hard physical activity had had been often provoking pain before the operation. Only 13 % of the patients from the late senility group had answered in the same way. The raise of the pain threshold among the old patients could be an explanation of this discrepancy. Reduction of the physical activity with an age could be another explanation. A great improvement of the quality of life is observed among two groups of patients after the operation. 92.5 % of the patients from the early senility group and 100% from the late senility group have not had pain during hard physical activity after operation. The cardio-surgery operation has softened the pain among the patients.

The results have confirmed a statistical significant relationship, for all of the patients, between associating pain with disease and being afraid about the operation before the operation. Every operation, especially cardio-surgical induces fear. The patients are afraid about the results of the operation, side effects and the quality of life after the treatment. Anxiety reduces the quality of life, because it changes the patient's real situation.

It has not been observed a statistical significant relationship, for the whole population, between an age and being afraid about the heart attack and sudden death. 50.5 % of the patients from the early senility group have been afraid about the heart attack and sudden death continuously. 21.5% of the patients

from this group have been afraid rarely and 28 % have not been afraid ever. 59.1 % of the patients from the late senility group have been afraid about the heart attack and sudden death continuously. 22.7 % of the patients from this group have been afraid rarely and 18.2 % have not been afraid ever. Pain has a great impact on the physical and psychological state of the patient. Pain provokes anxiety about the heart attack and sudden death. The anxiety can be greater when the patient have had a heart attack before. It is observed a significant difference in the answers of the patients after three months after operation. It is supposed that the operation has had improved the quality of life of the patients, it has lessen the pain and in the same way the anxiety. The patients have gained psychological strength after the operation. 46.7 % of the patients from the early senility group have not been afraid about the heart attack and sudden death. Only 25.2 % have answered to be afraid about the heart attack and sudden death constantly. There has been observed a smaller change in the answers of the late senility group. 36.4 % of the patients from the late senility group have been afraid about the heart attack and sudden death continuously. 27.3 % of the patients from this group have been afraid rarely and 36.4 % have not been afraid ever.

CONCLUSIONS

The research has confirmed that the quality of life of an old age patients after the cardio-surgical operation depends on psychical, psychological and social components.

Old age patients with a poor health condition, afraid about their life are being isolated from other family members.

Illness frequently cause that patient loose independence. It can be a problem for those who as a healthy people have been householders.

It has been confirmed, that pain and fear about the heart attack and sudden death is reduced among the old age patients after three months after the cardio-surgical operation.

Patients have changed their negative life attitude, have started to think more about their future, three months after the operation.

Social contacts between old age patients, their families and friends have been improved three months after the operation.

71 % of the patients have been satisfied about the surgical treatment three months after the operation.

BIBLIOGRAPHY

1. B. Bień „ Kwestionariusz EASY – Care: założenia i metodologia badań”, Gerontologia Polska 7(2) 1999, 37-43.
2. Bochenek „ Operacje kardiologiczne u chorych po 70 roku życia”, Medipress Kardiologia Vol.4, No 4 (1997).
3. W. J. Burszta „ Profile starości”, Ibis Poznań 2000.
4. W. J. Chodowrowski „ Czynniki ryzyka choroby niedokrwiennej serca w populacji geriatrycznej”, Nowa Klinika 9 Geriatria Vol 7 No 8) 817-821.
5. M. Creighton Neal, P. Feeltz Cohen “ Nursing Care Planning Guides”, 1983, 28-35.
6. K. De Walden- Gałuszko “Jakość życia uwarunkowana stamem zdrowia”, Warszawa 1997.
7. G. Garrett „ Potrzeby zdrowotne ludzi starszych”, Warszawa 1990., 37-45.
8. J. Rybicki „Wiek a wyniki rehabilitacji chorych z choroba niedokrwiennej serca”, Postępy Rehabilitacji Tom X 1996, 137- 143.
9. I. B. Wilson, S. P. Simson “ Handbook of Geriatric Emergency Care”, University Park Press, Baltimore 1984.

SUMMARY

Recent, significant progress in cardiosurgery has made patients' age scarcer and scarcer for disqualifying them for operative procedures.

The aim of this work is to evaluate selected aspects of old- age patients' life quality after the operation. Altogether, 129 patients were examined. All of them were 65 to 84 years old and treated in the Cardiosurgery Clinic in Gdansk. The patients had suffered from coronary heart disease and valve defects

(aortic, mitral, tricuspid) for many years and were to be operated on. Examinations showed that three months after the surgery the frequency of pain occurrence was smaller and the patients physical condition improved. The old people changed their general attitude to life and most of them began to socialise again. They became less afraid of infarct or sudden death.

All in all, advanced age should not be a contraindication against an operative procedure, as the patients' condition usually improved afterwards.

The application of operative procedures contributed to the improvement of old-age patients' health condition. The quality of their life improved, which was revealed by better fitness, smaller instability of the angina pectoris and a relief in the feeling of illness.

STRESZCZENIE

Znaczący postęp, jaki dokonał się w kardiologii w ostatnich latach spowodował, że coraz rzadziej wiek stanowi przyczynę dyskwalifikacji do zabiegu operacyjnego.

Celem pracy jest ocena wybranych aspektów jakości życia pacjentów w podeszłym wieku po zabiegu operacyjnym.

Badania przeprowadzone były wśród 129 chorych. Wszyscy badani znajdowali się w przedziale wiekowym od 65 do 84 lat i byli leczeni w Klinice Kardiologii Akademii Medycznej w Gdańsku.

Osoby badane od wielu lat cierpiały na chorobę wieńcową oraz wady zastawek (aortalną, mitralną, trójdzielną). U tych chorych podjęto decyzję o wykonaniu zabiegu operacyjnego. Badania wykazały, że u respondentów po trzech miesiącach od zabiegu obserwuje się zmniejszenie częstości występowania bólu, stan fizyczny pacjentów uległ poprawie. Seniorzy zmienili nastawienie do swojego życia, większość z nich odnowiła kontakty ze znajomymi. Stosunki między chorymi, a ich rodziną i znajomymi uległy zacieśnieniu. Wśród badanych zmniejszyła się obawa wystąpienia zawału lub nagłej śmierci.

Zawansowany wiek nie powinien być przeciwwskazaniem do zabiegu operacyjnego, ponieważ stan pacjentów po zabiegu uległ poprawie.

Zastosowanie leczenia operacyjnego przyczyniło się do poprawy stanu zdrowia chorych w podeszłym wieku, a tym samym poprawy jakości życia, wyrażającą się poprawą sprawności fizycznej, mniejszą niestabilnością dławicy oraz złagodzeniem poczucia choroby.