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Quality of Life of Patients Who Have Undergone Percutaneous Transluminal Coronary Angioplasty (PTCA) and Coronary Artery Bypass Graft (CABG) in a Selected Hospital, Kottayam

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Abstract:- The present study was done to compare the quality of life among patients who have undergone PTCA and CABG. The objectives of the study were, to assess the quality of life of patients who have undergone PTCA, to assess the quality of life of patients who have undergone CABG, to compare the quality of life of patients who have undergone PTCA and CABG, find out the association between quality of life scores of patients who have undergone PTCA and CABG with the selected demographic and clinical variables. The sample consisted of 100 patients, 50 patients who have undergone PTCA and 50 patients who have undergone CABG who were selected by purposive sampling technique. The design used was descriptive research design with quantitative approach. The tools used were Structured Questionnaire on socio demographic and clinical data and WHOQOL-BREF questionnaire to assess the quality of life. The data was analysed using descriptive and inferential statistics. The findings of the study depicted that 44% of samples who have undergone PTCA and 66% of samples who have undergone CABG had good quality of life. The study findings revealed that there was significant difference (t =2.336, p=0.02) in the quality of life among patients who have undergone PTCA and CABG. The study concluded that patients who have undergone CABG have overall good quality of life than that of patients who have undergone PTCA. The study findings showed that there was significant association between quality of life of patients who have undergone PTCA and level of education (Fishers exact significance= 0.015), ejection fraction (Fishers exact significance= 0.013), and history of hospitalization due to cardiac cause (Fishers exact significance= 0.014). The study findings revealed that there was significant association between quality of life of patients who have undergone CABG and level of education (Fishers exact significance=0.010).

I. INTRODUCTION

Cardiovascular disease (CVD) is a group of diseases that include both the heart and blood vessels, thereby including coronary heart disease (CHD) and coronary artery disease (CAD), and acute coronary syndrome (ACS) among several other conditions. Cardiovascular disease is now recognized as the main cause of death and disability worldwide. Coronary artery bypass graft (CABG) and percutaneous coronary intervention or percutaneous transluminal coronary angioplasty (PTCA) are the treatment options for coronary artery disease (CAD. Quality of Life is a unique personal perception, the way people evaluate their own health condition and medical aspects of their lives.

A. Need For the Study

Coronary artery disease (CAD) is one of the leading cause of mortality and morbidity worldwide. Due to the high prevalence of CAD, both percutaneous coronary intervention (PCI) and coronary artery bypass graft surgery (CABG) are extremely common procedures. Both techniques have proven to be safe and effective in treating CAD. Several studies have shown that both CABG and PCI can improve mortality and quality of life (QOL) significantly. Despite the several studies comparing QOL after CABG versus angioplasty among patients with CAD, the results have remained unclear.

B. Statement of the Problem

A comparative study to assess the Quality of Life (QOL) of patients who have undergone Percutaneous Transluminal Coronary Angioplasty (PTCA) and Coronary Artery Bypass Grafting (CABG) in a selected hospital at Kottayam.

C. Objectives of the Study

- Assess the quality of life of patients who have undergone PTCA
- Assess the quality of life of patients who have undergone CABG.
- Compare the quality of life of patients who have undergone PTCA and CABG.
- Find out the association between quality of life scores of patients who have undergone PTCA and CABG with the selected demographic and clinical variables

D. Operational Definitions

➢ *Quality of life:*

In this study, quality of life refers to individual's perception of their own position in life in context of the culture and value system in which they live, in relation to their goals, expectations, standards and concerns, which are briefed to domains such as physical health, psychological health, social relationships and environment as measured by WHOQOL-BREF questionnaire.

➢ *Patients who have undergone CABG:*

In this study patients who have undergone CABG refers to those who were treated with a form of bypass surgery, which is a major operative procedure done to restore blood flow to an obstructed coronary artery,6 months ago or more.

➢ *Patients who have undergone PTCA:*

In this study patients who have undergone PTCA refers to those who were treated with coronary angioplasty, a minimally invasive procedure done to enlarge the lumen of atherosclerotic coronary artery,6 months ago or more.

E. Hypotheses

All hypotheses are tested at 0.05 level of significance.

H1: There is a significant difference in the quality of life scores of patients who have undergone PTCA and CABG

H2: There is a significant association between quality of life scores of patients who have undergone PTCA and CABG and selected demographic and clinical variables

F. Assumption

Patients who have undergone PTCA and CABG can have differences in quality of life.

II. METHODOLOGY

A. Research Design

The research design selected for the present study was a descriptive comparative study design.

B. Setting of the Study

This comparative study was conducted in cardiology medical and surgical OPD's of Caritas heart institute.

C. Population

Population in the present study is patients who have undergone CABG or PTCA 6 months ago or more and had come for review in the cardiology medical and surgical OPDs of Caritas Heart Institute.

D. Sample Size

The study sample consists of 100 patients, among that 50 patients who had undergone CABG and 50 patients who had undergone PTCA and those who met the inclusion criteria.

E. Sampling Technique

The sampling technique selected for the present study is purposive sampling.

F. Criteria For Sample Selection

➢ *Inclusion criteria:*

- Patients who had undergone PTCA 6 month ago or more
- Patients who had undergone CABG 6 month ago or more
- Patients who can read and write Malayalam

➢ *Exclusion criteria*

- Patients who have visual and hearing impairment
- Patients who have physical impairment

G. Tools

In this study the data collection instruments used are

TOOL 1: Structured Questionnaire to assess socio demographic data and clinical data.

TOOL 2: WHOQOL-BREF QUESTIONNAIRE

QOL of patients who have undergone PTCA and CABG was assessed using WHOQOL-BREF questionnaire using interview technique. This standardized tool consists of 26 items among which 7 items for assessing physical domain of QOL,6 items for assessing psychological domain of quality of life,3 items for assessing social domain of quality of life and 8 items for assessing environmental domain of QOL. The domain scores are scaled by 5-point Likert's scale (low score of 1 to high score of 5) in which higher score indicate a higher quality of life. The raw scores of domains are converted into transformed scores.

Total score: 100

III. RESULT

The independent 't' test was used to compare the QOL among patients who have undergone PTCA and CABG. The mean scores of QOL among patients who have undergone PTCA and CABG is 65.06 and 69.70 respectively. There is significant difference (t =2.336, P=0.02) between the QOL among patients who have undergone PTCA and CABG. The study results revealed that patients who have undergone CABG have overall good QOL than that of patients who have undergone PTCA.

Category	Mean	SD	df	t value	P value
PTCA	65.06	10.99	98	2.336*	0.02
CABG	69.70	8.73			

Table 1 Mean, standard deviation and 't' value of QOL among patients who have undergone PTCA and CABG (n=100)*Significant

The data in the Table 11 show that mean scores regarding QOL of patients who have undergone PTCA and CABG is 65.06 and 69.70 respectively. The 't' value (t =2.336, P=0.02) indicated that there is significant difference between the quality of life among patients who have undergone PTCA and CABG. Hence the null hypothesis is rejected. QOL is more among patients who have undergone CABG.

IV. CONCLUSION

The present study was aimed to assess the QOL among patients who have undergone PTCA and CABG in a selected hospital Kottayam. In the present study the obtained mean score of QOL among patients who have undergone PTCA is 65.06 and in patients who have undergone CABG is 69.70. The study results revealed that, there is significant difference (t=2.336, P=0.02) in the QOL of patients who have undergone PTCA and CABG. The mean score of QOL of patients who have undergone CABG is higher than that of patients who have undergone PTCA.

The present study results showed that there was significant association between o QOL f patients who have undergone PTCA and selected socio demographic and clinical variables like level of education, ejection fraction, and history of hospitalization due to cardiac cause (Fishers exact significance <0.05).

The result of the present study also revealed that there was significant association between QOL of patients who have undergone CABG and selected sociodemographic variable like, level of education (Fishers exact significance <0.05).

The study concluded that QOL among patients who have undergone PTCA is average.

➢ *Nursing Implications*

The study findings have implications in the field of nursing education, nursing practice, nursing administration and nursing research.

RECOMMENDATIONS

- A similar study can be replicated on a large sample with different demographic variables thereby findings can be generalized to a larger population.
- A study to assess the factors affecting QOL of patients who have undergone PTCA.

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