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ORIGINAL ARTICLE

Quality of Life After on Pump Coronary Artery Bypass Grafting Post Six Months with Cardiac Rehabilitation

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ABSTRACT

Aim: To describe the quality of life six months following on-pump coronary artery bypass grafting in people aged 61 to 70.
Methods: An analytical cross-sectional survey was conducted on 119 cardiovascular patients who have undergone On Pump CABG procedure. The data was collected from Punjab Institute of Cardiology and Omer Hospital Lahore. 70 patients were taken from Punjab Institute of Cardiology Lahore and 49 from Omer Hospital. Non-probability convenient sampling was used as a sampling approach. From August 2018 until January 2019, the research was conducted. The Medical Outcomes Study short form 36 (SF-36) questionnaires were used to determine the quality of life.
Results: The mean age of the 119 patients was 65.23 + 3.35, with a standard deviation of 3.35. Three patients (2.5%) had energy fatigue, three (2.5%) had role limitations due to physical health, fifteen (12.6%) had role limitations due to emotional problems, 96 (80.7%) had physical functioning and two (1.7%) had emotional well-being, four (3.4%) had social functioning, three (2.5%) had pain, and three (2.5%) had general health problems.
Conclusion: The quality of life of on-pump CABG patients aged 61-70 years after six months of cardiac rehabilitation was reported to be satisfactory, with improved activities of daily living.
Keywords: Quality of life, on pump coronary artery bypasses grafting, cardiac rehabilitation

INTRODUCTION

The World Health Organization (WHO) defines quality of life (HRQOL) as physical, emotional, and social aspects of health that are influenced by a person's experience, values, hope, and perceptions, which are frequently addressed in coronary artery bypass grafting (CABG) patients[1,2]. In HRQOL, leisure activities, risk and safety, interaction, social contact, autonomy, physical health and fitness and financial system are key factors[3]. Quality of life is usually measured by Short Form 36 health related quality of life (SF-36 HRQOL).

On pump CABG is common surgery performed in all over the world[1]. It is useful to treat the signs and symptoms of coronary artery disease and prevent the myocardial infarction[4]. On pump CABG is safe procedure that has a small risk of mortality[5]. This procedure is performed to regain and to maintain the normal functioning of the body[6]. The prevalence of the coronary artery bypass grafting is 27% of all cases[7]. Cardiac rehabilitation is holistic approach including physical activity, exercise, diet, blood pressure, psychotherapy, control blood glucose and cessation of smoking[3]. On pump CABG is therefore an alternative to reduce the primary complications after surgery therefore this technique is useful to improve the post-operative health related QOL[4].

As per researcher's best knowledge, there was limited literature nationally and internationally. Researcher wanted to address the quality of life after on-pump coronary artery bypass grafting post six months aged 61-70 years, So that necessary measures should be taken to uplift their quality of life in terms of endurance and ADLs which will definitely keep both patients and cardiac rehabilitation experts to reduce the finances and energy for the betterment of community.

The study goal was to describe the quality of life six months following on-pump coronary artery bypass grafting in people aged 61 to 70.

MATERIAL AND METHODS

An analytical cross-sectional survey was conducted on 119 cardiovascular patients who have undergone on pump coronary artery bypass grafting procedure after IRB permission. The study settings were Punjab Institute of Cardiology and Omer Hospital Lahore. 70 patients were recruited from Punjab Institute of Cardiology and 49 from Omer Hospital Lahore. Non-probability convenient sampling was used as a sampling approach. From August 2018 until January 2019, the research was conducted. Patients between the ages of 61 and 70 who had on-pump coronary artery bypass grafting were included, whereas those with heart failure, severe peripheral vascular disease, septal defects, or unstable angina were omitted. Cardiac rehabilitation (risk factor modification and conditioning regimes as per APTA guidelines) was given thrice in a week for three months at Ghurki Trust Teaching Hospital by senior cardiac rehab physical therapist. Medical Outcomes Study short form 36 (SF-36) questionnaires were used to measure quality of life (physical functioning, role physical, bodily pain, general health, vitality, social functioning, and role emotional and mental health) and SPSS version 23 was used to analyze the results. A prior consent was taken from College research committee, hospital administration and from patients.

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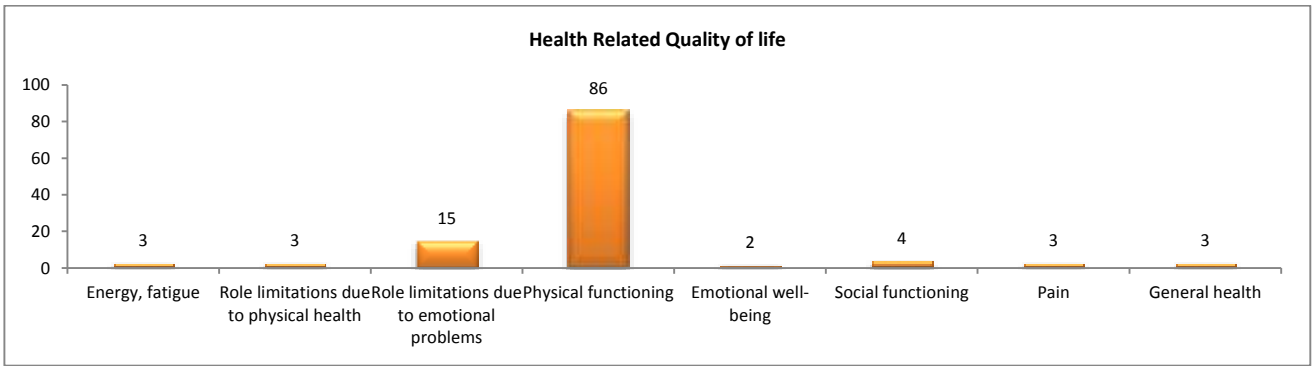
RESULTS

Age and gender distribution: Out of 119 patients 55(46.2%) having age range of 61-64 years, 26(21.8%) having age 65-67 years and 38(31.9%) having age 68-70 years including 65 males and 54 were females. The mean age and standard deviation of 119 patients was 65.23±3.35.

Domain	Sub-Groups	Frequency	Percent
Age	61-64 years	55	46.2
	65-67 years	26	21.8
	68-70 years	38	31.9
Gender	Male	65	54.6
	Females	54	45.4

Quality of life	Frequency	%age
Energy, fatigue	3	2.5
Role limits due to physical health	3	2.5
Role limits due to emotional problems	15	12.6
Physical functioning	86	72.2
Emotional well-being	2	1.7
Social functioning	4	3.4
Pain	3	2.5
General health	3	2.5
Total	119	100.0



Quality of life description: Quality of life includes physical functioning, role limits due to physical health, role constraints due to emotional issues, energy/fatigue, emotional well-being, social functioning, pain, and overall health. Three patients (2.5%) reported energy fatigue, three (2.5%) role limitations due to physical health, fifteen (12.6%) role limitations due to emotional problems, 96(80.7%) physical functioning and two (1.7%) emotional well-being, four (3.4%) social functioning, three (2.5%) pain, and three (2.5%) general health problems.

DISCUSSION

CABG is a surgery that includes bypassing blocked vessels with an artery or vein from elsewhere in the body, restoring enough blood flow to the heart. After CABG with physical exercise, men and women's quality of life improved dramatically after a year. On the SF-36 HRQOL Questionnaire, the elderly had a greater recovery and quality of life. After six months on pump coronary artery bypass grafting, the majority of patients had a very excellent quality of life and were not limited in their activities, including social functioning, physical functioning, mental health, and emotional status.

This study looked at the health-related quality of life following coronary artery bypass grafting with an on-pump coronary artery bypass graft. The health-related quality of life was observed to be better with on-pump CABG than than off-pump CABG in the current study[8].

In 2003, a study denoted that a slower initial recovery is expecteded in the elderly who have decreased physical reserve and have poorer baselineline scores in relation with general population in terms of quality of life[9].

A systematic review concluded as There were significant improvements in functional capacity in very old adults participating in cardiac rehabilitation soon after CABG with resistance and balance training which was measured by 6-minute walk test, time up to go and relative workload as in recent study mentioning the same thing[10].

After coronary artery by-pass grafting, quality of life increased significantly over time, but no substantial or clinically meaningful changes were detected when compared to controls, according to a systematic study. The majority of CABG patients improved their quialty of life following cardiac rehabilitation in the current research[11].

Patients receiving coronary artery bypass graft (CABG) surgery in a clinical pathway had poorer quality of life than patients getting CABG in a conventional-care plan, indicating that these goals were not accomplished in this CABG pathway, according to another thorough study. However, a recent study indicated that cardiac rehabilitation improved the quality of life of CABG patients who were on the pump[12].

Striking feature of this study was that cardiopulmonary rehabilitation is integral part after CABG to enhance the quality of life of any gender. Future studies are recommended to co-relate with the complication like chondrites after coronary artery bypass grafting and should asses the quality of life after the acute stage of coronary artery bypass grafting.

CONCLUSION

The quality of life of on-pump CABG patients aged 61-70 years after six months of cardiac rehabilitation was reported to be satisfactory, with improved activities of daily living.

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