

Subjective and Objective Assessment before and after CABG and AVR Procedures

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Introduction. Quality of life (QoL) is one of the major aspects evaluating success of any medical procedure. Coronary artery bypass grafting (CABG) and aortic valve replacement (AVR) are one of the most commonly performed cardiac surgeries that are associated with major surgical trauma and general anaesthesia.

Aim. The aim of this study is to assess CABG and AVR patient physical condition and quality of life before and after surgery. It also aims to investigate the correlation between patient's physical condition and quality of life.

Material and Methods. 80 patients participated in this study. We included patients who were undergoing elective AVR or elective CABG procedures. Surgeries were performed with cardiopulmonary bypass. Patients' physical condition and QoL were assessed using a six-minute walk test (6MWT) and Minnesota Living with Heart Failure Questionnaire (MLHFQ). These tests were applied twice – before surgery and three months after it, and the results were compared.

Results. The preoperative results in AVR group were as follows: mean 6MWT distance of 391.5 meters and mean MLHFQ points were 33.6; in CABG group – mean 6MWT distance was 379 meters and mean MLHFQ points were 33.5. In comparison, postoperative results after 3 months in AVR group were as follows: mean 6MWT distance 453.2 meters and mean MLHFQ points were 22.3; in CABG group – mean 6MWT distance was 443.7 meters and mean MLHFQ points were 26.6. Both methods showed significant correlation with NYHA: MLHFQ ($r = 0.563$, $p < 0.001$), 6MWT ($r = -0.577$, $p < 0.001$). Correlation between the methods was moderate ($r = -0.422$, $p < 0.001$).

Conclusion. Despite the surgical trauma, in a three-month follow-up visit, patients' physical condition and QoL were improved.