

• **BACKGROUND:** The aim of this study is to evaluate the outcome of fist 107 cases of isolated minimal Invasive multi vessel CABG in terms of complete revascularization and review the surgical technique in terms of reproducibility, efficacy and safety. **METHODS:** The data of patients was evaluated retrospectively from the cardiac surgery database between Jan 2023 to Feb 2024. Only the patients with isolated CABG,CABG + AVR, CABG + MVR with an EF of 35% and more were selected.All the patients underwent minimally invasive multivessel CABG through the left anterior minithoracotomy in the fourth intercostal space. The left internal mammary artery and the long saphenous vein were used as conduits.A chitwood clamp and de Nido cardioplegia was used. The procedure was completed either on beating heart, on pump beating or cardio-plegic arrest. Conventional octopus was used for beating heart. Femoral arterial and venous cannulation was used for going on bypass. Vacuum assisted drainage for complete decompression.Left Internal mammary artery and long sephanous vein were used as a conduit.The grafting was done in an end to side or sequential manner. We examined the MICS CABG patients' number of grafts decided pre op on coronary angiogram and grafts completed post operatively, operating time and postoperative outcomes. **RESULTS:** Of the 107 patients, 10(9%) underwent off-pump CABG, 61(57%) underwent On-pump CABG, and 36(33%) underwent on-pump beating CABG.2 conversionsOne patient had intramyocardial LAD and the second patient had pulmonary artery injury. One reopening due to bleeding was controlled via a thoracotomy. Among the 61 patients who underwent on-pump CABG, the total cardiopulmonary bypass time was 192.69 ± 41.02 minutes, and the aortic cross-clamp time was 105.825 ± 29.49 minutes. The average number of diseased vessels was 2.57 ± 0.72 , and the average number of grafts done was 2.38 ± 0.86 . **CONCLUSIONS:**Complete coronary revascularization could be routinely performed using the above-mentioned technique. No patient selection, based on number of grafts, quality and location of coronary vessels, left ventricle function, age, gender, or body mass index, is required.

Age	57.86=8 YEARS
GENDER	Male=90%(96)Female10%(11)
LVEF	53.43+_7.79%
EURO II	2.5+_0.33
CPB TIME (MIN)	192.69+_41.02
CX CLAMPTIME (MIN)	105.82+_29.49
ICU STAY(HRS)	25.56+_5.9
VENTILATION TIME (HRS)	12.86+_7.2
HOSPITAL STAY (DAYS)	4.3+_2.3
CHEST DRAINAGE (ML)	689+_362ml

