PRIMARY CORONARY ARTERY BYPASS SURGERY AT CHENG HSIN GENERAL HOSPITAL

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From July 1994 to June 2003, this group at Cheng Hsin General Hospital has performed 2,195 cases of coronary artery bypass grafting (CABG), consisting of 2,145 cases of primary CABG and 50 cases of redo-CABG. Of the primary CABG cases, 1,641 were male patients and 504 female patients. Their age range was from 14 to 91 years. Majority of these patients were in their sixth and seventh decades of life, 34.8% and 33.4%, respectively. Ninety-seven octogenarians and two nonagenarians were among this series of patients. A total of 6,193 grafts were anastomosed, averaging 2.89 grafts per patient. Majority of the cases was of double (518, 24.2%) and triple bypass grafts (909, 42.4%), with nine cases of sextuple bypass grafts.

Eighty-four patients (3.9%) were assisted with intra-aortic balloon pump (IABP) before the operation, with 20 patients' left ventricular ejection fraction ≤ 30% and another 9 patients' LVEF between 30% and 40%. Seventy-one patients (3.3%) required IABP postoperatively. Another 71 patients were either uremic or with renal dysfunction, four of them required hemodialysis before the surgery. One hundred and seventy-one patients were also diagnosed of mitral valve regurgitation (MR) before the operation, 120 of severe MR and 51 of moderate MR. One hundred and sixty-three patients (7.6%) received CABG operation combined with mitral valve operation, 95 (4.4%) with mitral valve replacement and 68 (3.2%) received mitral valve repair. Another 108 patients (5.0%) received CABG with aortic valve replacement, and 17 patients (0.8%) with mitral and aortic valve replacements.

To reduce operative risks and patients' discomfort, minimally invasive coronary artery bypass procedures have been intercalated in recent years. These include OPCAB, minimal incisions, endoscopic graft harvesting, and self-closing clips for coronary and aortocoronary anastomoses.