Early Postoperative Results Comparison between Left Anterior Descending Artery Patch and Jumping Graft in CABG

Thesis

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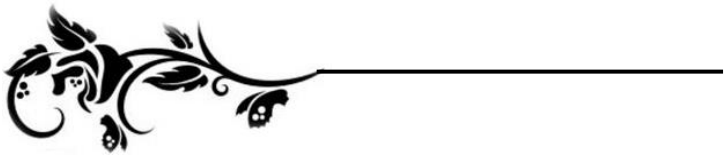
List of Abbreviations

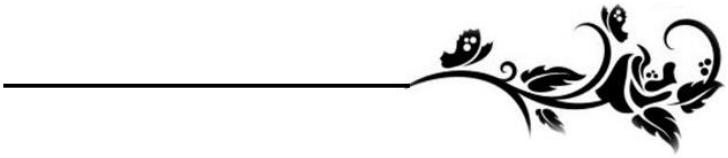
Abb.	Full term
ADP	Adenosine diphosphate
AF	Atrial fibrillation
APV	Average peak velocity
ATP	Adenosine triphosphate
CABG	Coronary artery bypass grafting
CAD	Coronary artery disease
CRP	C-reactive protein
D	Diagonal
DF	Diastolic flow
DM	Diabetus Mellitus
DSVR	Diastolic to systolic velocity ratio
ECG	Electrocardiography
EF	Ejection fraction
ET-1	Endothelin-1
ETA	Endothelin receptors
Hb	Heamoglobuin
IMA	Internal mammary artery
ITA	Internal thoracic artery
LA	Left atrium
LAD	Left anterior descending
LCx	Left circumflex
LDL	Low-density lipoprotein
LIMA	Left internal mammary artery
LITA	Left internal thoracic artery
LM	Left main

List of Abbreviations cont…

Abb.	Full term
LVED	Left ventricular end diastole
LVES	Left ventricular end systole
Mac	Marginal acute
MI	Myocardial infarction
MO	Marginal obtuse
MSCT	Multisclise computed tomograph
RA	Radial Artery
RBCs	Red blood cells
RCA	Right coronary artery
RIMA	Right internal mammary artery
SD	Standard deviation
SVG	Saphenous vein graft
TIAs	Transient ischemic attacks
VSD	Ventricular septal defect



Introduction



INTRODUCTION

Coronary artery bypass grafting (CABG) significantly increase life expectancy, complete myocardial revascularization should be the main goal of the surgical intervention with the increased use of percutaneous interventions by cardiologists, the number of high-risk and elderly patients referred for CABG operation has increased. Because the diffusely diseased LAD is frequently encounterd in this patient population, complete myocardial revascularization may not be achieved by conventional bypass techniques.[1]

Although coronary endarterectomy has been tried as an alternative adjunct, most surgeons are still reluctant to use this approach because of the controversial results reported in the literature because of its high perioperative mortality. Thus cardiac surgeons are now focused on new techniques that avoid endarterectomy procedure or at least limit the length of the endarterectomized arterial segment.[2]

Recently, different means of LAD reconstruction using long-segmental anastomosis techniques have been introduced in this special subgroup of patient to afford complete myocardial revascularization.The early results suggest that these approaches are comparable with conventional bypass techniques, but only a limited number of studies have reported the clinical outcomes, patency rates,and the incidence of cardiac-related events at long-term follow-up. Furthermore, the

heterogenous nature of the patient populations in different stuies renders more difficult the interpretation of the results and confuses the data analysis.[3]

However, modification of conventional techniques are needed to achieve satisfactory long-term outcomes because the classic bypass grafting to LAD may lead to suboptimal results.[4]

Coronary endarterectomy is usually the technique of choice in patients presenting with diffuse and extensive coronary artery disease. Although the benefits endarterectomy of the LAD have been published, many surgeons are still reluctant to use this technique because of its high perioperative and postoperative mortality rates. Another major concern with this technique is the development of myofibrointimal proliferation, which negatively affects the early and long-term clinical and angiographic results[5]