



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

Thesis

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of Master Degree in **Cardiothoracic Surgery***

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا  
إلا ما علمتنا إنك أنت  
العليم العظيم

صدق الله العظيم

سورة البقرة الآية: ٣٢

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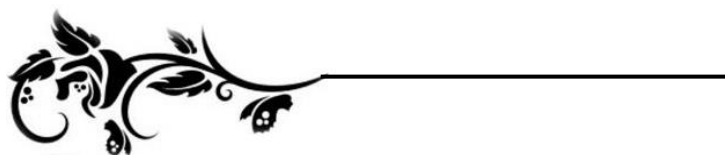
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# List of Abbreviations

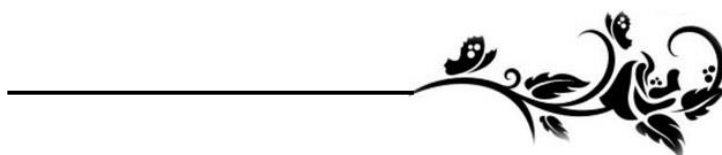
Abb.	Full term
<b>ADP</b> .....	Adenosine diphosphate
<b>AF</b> .....	Atrial fibrillation
<b>APV</b> .....	Average peak velocity
<b>ATP</b> .....	Adenosine triphosphate
<b>CABG</b> .....	Coronary artery bypass grafting
<b>CAD</b> .....	Coronary artery disease
<b>CRP</b> .....	C-reactive protein
<b>D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

## List of Abbreviations cont...

Abb.	Full term
<b>LVED</b> .....	Left ventricular end diastole
<b>LVES</b> .....	Left ventricular end systole
<b>Mac</b> .....	Marginal acute
<b>MI</b> .....	Myocardial infarction
<b>MO</b> .....	Marginal obtuse
<b>MSCT</b> .....	Multislice computed tomograph
<b>RA</b> .....	Radial Artery
<b>RBCs</b> .....	Red blood cells
<b>RCA</b> .....	Right coronary artery
<b>RIMA</b> .....	Right internal mammary artery
<b>SD</b> .....	Standard deviation
<b>SVG</b> .....	Saphenous vein graft
<b>TIAs</b> .....	Transient ischemic attacks
<b>VSD</b> .....	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 encountered in this patient population, complete myocardial revascularization may not be achieved by conventional bypass techniques.<sup>1</sup>

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.<sup>2</sup>

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 studies renders more difficult the interpretation of the results and confuses the data analysis.<sup>3</sup>

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.<sup>4</sup>

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<sup>5</sup>