Endoscopic Versus Open Saphenous Vein Harvesting During Coronary Artery Bypass Grafting Surgery

Thesis

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By

Badr Mohammed Abd El-Hameed Mohammed Fayed

M.B.B.Ch, M.Sc. (Cardiothoracic Surgery)

Ain Shams University

Under Supervision of

Prof. Dr./ Walaa Ahmed Saber

Professor of Cardiothoracic Surgery

Faculty of Medicine - Ain Shams University

Prof. Dr./Mostafa Abdel-Azim Abdel-Gawad

Professor of Cardiothoracic Surgery

Faculty of Medicine - Ain Shams University

Brig. Dr./ Tamer Mansour Ayed

Consultant & Head of Cardiothoracic Surgery Department

Al Galaa Military Medical Compound

Assist. Prof. Dr. / Sherif Abdel-Samie Mansour

Assistant Professor of Cardiothoracic Surgery

Faculty of Medicine - Ain Shams University

Faculty of Medicine – Ain Shams University

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List of Abbreviations

Abb.	Full term
BMI	*Body massindex*
CABG	*Coronary artery bypassesgrafting*
CAD	*Coronary arterydisease*
CBC	*Complete blood count*
CPB	*Cardiopulmonarybypass*
Creat	*Creatinine*
CT-ESVH	*Closed tunnel—endoscopic saphenous vein harvesting*
CVD	*Conventional vein harvesting technique*
DM	*Diabetes mellitus*
ECG	*Electrocardiogram*
EF	*Ejectionfraction*
EVH	*Endoscopic veinharvesting*
FDA	*Federal association of food and drugs administration USA*
GEA	*Gastroepiploic artery*
GEA	*Gastroepiploic artery*
GSV	*Great saphenous vein*
ICU	*Intensive careunit*
IMA	*Internal mammaryartery*
ITA	*Internal thoracic artery*
LAD	*Left anterior descending coronaryartery*
LCX/CX	*Circumflex artery*
LIMA	*Left internal mammaryartery*
LM	*Left main*
LOS	*Length of stay*
LSV	*Long saphenousvein*
MI	*Myocardial infarction*
MIVHt	*Minimal invasive vein harvesting technique*

List of Abbreviations (Cont...)

Abb.	Full term
MR	*Mitral regurgitation*
N.S	*Non significant*
NA	*No abnormality*
NIWHD	*Non infected wound healing disturbance*
OCSVH	*Open conventional saphenous vein harvesting*
OT-ESVH	*Open tunnel—endoscopic saphenous vein harvesting*
OVH	*Open vein harvesting*
PCI	*Percutaneous coronary intervention*
PDA	*Posterior descending artery*
PTCA	*Percutaneous transluminal coronary angioplasty*
PVD	*Peripheral vascular disease*
RA	*Radial artery*
RCA	*Right coronary artery*
RCTs	*Randomized clinical trials*
RIMA	*Right internal mammaryartery*
S	*Significant*
SBT	*Standard bridging technique*
SSV	*Short Saphenous vein*
STEMI	*ST segment elevation myocardial infarction*
SVG	*Saphenous vein graft*
TR	*Tricuspid regurge*
VAS	*Visual analogue scale*
WBCS	*White blood cells*

INTRODUCTION

Coronary artery disease (CAD) is the most common heart disease worldwide ***(Okrainec et al., 2004)***.

Coronary artery bypass grafting (CABG) remains the gold standard in the treatment of multi-vessel coronary artery disease (CAD) ***(Wijns et al., 2010)***.

Despite increasing recognition of benefits of multiple arterial grafting, Long saphenous vein (LSV) remains a frequently chosen conduit for coronary artery bypass grafting (CABG) ***(Raja et al., 2004; Raja et al., 2009; Dimitrova et al., 2012; Locker et al., 2012)***.

Traditionally, LSV is harvested using a lengthy incision in the lower limb termed open vein harvesting (OVH)**.** During the last few decades. Minimally invasive techniques have dramatically changed clinical practice in cardiac surgery. Driven by the idea of providing less invasive techniques to improve outcome and patient satisfaction, a variety of new techniques have been suggested. At that time, the term minimally invasive summarized surgery through limited or alternative skin incisions or the use of endoscopic or videoscopic support, as well as to perform cardiac surgery procedures without cardiopulmonary bypass support ***(Kempfert et al., 2011)***. More recently, Endoscopic vein harvesting (EVH) has grown in popularity in an effort to reduce the pain and risk

of infection associated with the procedure ***(Kempfert et al., 2011; Raja et al., 2013)***.

In the mid-1990's, Surgeons began using endoscopic vein-graft harvesting techniques as an alternative to large, incision-based open vein-graft harvesting to improve postoperative discomfort and incision-site complications ***(Williams et al., 2012).***