

Endovascular versus Bypass in Management of Superficial Femoral Artery Occlusive Disease

Thesis

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مقارنة علاج أمراض انسداد الشريان الفخذي السطحي بالقسطرة التداخلية أو التدخل الجراحي

رسالة

مقدمة توطئة للحصول على درجة الدكتوراه في

جراحة الأوعية الدموية

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

«وَأَنْزَلَ اللَّهُ عَلَيْكَ

الْكِتَابَ وَالْحِكْمَةَ

وَعَلَّمَكَ مَا لَمْ تَكُنْ تَعْلَمُ

وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ

عَظِيمًا»

صدق الله العظيم

Contents

<i>-Introduction and Aim of the Work.....</i>	<i>1</i>
<i>-Review of literature</i>	<i>4-98</i>
1) Anatomy of femoropopliteal segment.....	4
2) Pathophysiology of PAD.....	10
3) Diagnosis of PAD.....	22
4) Treatment of PAD.....	41
<i>-Patient and methods.....</i>	<i>99</i>
<i>-Results.....</i>	<i>106</i>
<i>-Discussion.....</i>	<i>136</i>
<i>-Summary and Conclusion.....</i>	<i>145</i>
<i>-References.....</i>	<i>147</i>
<i>-Arabic summary</i>	

Common Abbreviations

ABI	<i>Ankle-brachial index</i>
AHA	<i>American Heart Association</i>
AKA	<i>above-knee amputation</i>
aPTT	<i>activated partial thromboplastin time</i>
ARF	<i>acute renal failure</i>
AVM	<i>arteriovenous malformation</i>
BASIL	<i>Bypass versus Angioplasty in Severe Ischemia of the Leg</i>
BKA	<i>below-knee amputation</i>
BES	<i>Balloon expandable stents</i>
BOA	<i>Bypass oral anticoagulation</i>
CAD	<i>coronary artery disease</i>
CE-MRA	<i>Contrast enhanced magnetic resonance angio.</i>
CFA	<i>common femoral artery</i>
CFV	<i>common femoral vein</i>
CIA	<i>common iliac artery</i>
CIN :	<i>Contrast induced nephropathy</i>
CM	<i>Contrast media</i>
CLI	<i>critical limb ischemia</i>
CRP	<i>C-reactive protein</i>
CT	<i>computed tomography</i>
CTA	<i>computed tomographic angiography</i>
CVI	<i>chronic venous insufficiency</i>
CVP	<i>central venous pressure</i>
3D	<i>three-dimensional</i>
DES	<i>drug-eluting stent</i>
DIC	<i>Disseminated intravascular coagulation</i>
DM	<i>diabetes mellitus</i>
DP	<i>Dorsalis pedis artery</i>
DSA	<i>digital subtraction angiography</i>
DUS	<i>duplex ultrasound</i>
DVT	<i>deep venous thrombosis</i>
EF	<i>ejection fraction</i>
EIA	<i>external iliac artery</i>
ePTFE	<i>expanded polytetrafluoroethylene</i>
FDA	<i>Food and Drug Administration</i>
FFP	<i>fresh frozen plasma</i>
FMD	<i>fibromuscular dysplasia</i>
GA	<i>general anesthesia</i>
GSV	<i>great saphenous vein</i>

GW	<i>guide wire</i>
HDL	<i>high-density lipoprotein</i>
HIT	<i>heparin-induced thrombocytopenia</i>
HTN	<i>Hypertension</i>
ICU	<i>intensive care unit</i>
IC	<i>Intermittent claudication</i>
ICAM	<i>Intracellular adhesion molecule</i>
IVUS	<i>Intravascular ultrasound</i>
LDL	<i>low-density lipoprotein</i>
LMWH	<i>low-molecular-weight heparin</i>
MCP 1	<i>Monocyte chemotactant protein 1</i>
MDCTA	<i>Multidetector computed tomography angiography</i>
MI	<i>myocardial infarction</i>
MRA	<i>magnetic resonance angiography</i>
MR	<i>magnetic resonance</i>
MRI	<i>magnetic resonance imaging</i>
NAC	<i>N-acetyl cysteine</i>
NSF	<i>Nephrogenic systemic fibrosis</i>
OTW	<i>over-the-wire</i>
PAD	<i>peripheral arterial disease</i>
PAI	<i>plasminogen activator inhibitor</i>
PAOD	<i>peripheral arterial occlusive disease</i>
PER	<i>Peroneal artery</i>
PFA	<i>profunda femoris artery</i>
PSV	<i>peak systolic velocity</i>
PSR	<i>Peak systolic ratio</i>
PT	<i>Posterior tibial artery</i>
PTA	<i>percutaneous transluminal angioplasty</i>
PTFE	<i>Polytetrafluoroethylene</i>
PTT	<i>partial thromboplastin time</i>
RCT	<i>randomized controlled trial</i>
RPI	<i>Regional perfusion index</i>
SD	<i>standard deviation</i>
SES	<i>Self-expanding stents</i>
SFA	<i>superficial femoral artery</i>
SFJ	<i>saphenofemoral junction</i>
SIA	<i>Subintimal angioplasty</i>
SK	<i>Streptokinase</i>
SLP	<i>Segmental limb pressure</i>
SMC	<i>smooth muscle cell</i>
TALISMAN	<i>Therapeutic Angiogenesis Leg Ischemia Study for the Management of Arteriopathy and Nonhealing Ulcer</i>

TASC	<i>Trans-Atlantic Inter-Society Consensus for the Management of Peripheral Arterial Disease</i>
Tc pO₂	<i>Transcutaneous oxygen tension</i>
TEE	<i>transesophageal echocardiography</i>
TF	<i>tissue factor</i>
TGF-β	<i>transforming growth factor-β</i>
t-PA	<i>tissue plasminogen activator</i>
TPT	<i>Tibio-peroneal trunk</i>
TRAFFIC	<i>Therapeutic Angiogenesis with Recombinant Fibroblast Growth Factor-2 for Intermittent Claudication</i>
UFH	<i>Unfractionated heparin</i>
UK	<i>Urokinase</i>
VCAM-1	<i>vascular cell adhesion molecule-1</i>
VEGF	<i>vascular endothelial growth factor</i>
VSMC	<i>vascular smooth muscle cell</i>

LIST OF FIGURES

	Table	Page
Figure 1	Challenges in the SFA.	1
Figure 2	Scheme of the femoral artery.	5
Figure 3	The left femoral triangle.	6
Figure 4	The femoral artery and Adductor canal.	7
Figure 5	Atherosclerosis process.	12
Figure 6	TASC II classification of femoropopliteal lesions.	20
Figure 7	The normal velocity waveform from a peripheral artery.	29
Figure 8	Method for measurement of the ankle-brachial index (ABI).	30
Figure 9	Putative pathogenic mechanisms of contrast-induced nephropathy (CIN).	38
Figure 10	Algorithm of treatment of PAD.	42
Figure 11	Treatment of CLI.	46
Figure 12	Overview of New Technologies for Lower Extremity Revascularization.	59
Figure 13	Examples of non-selective “flush” catheters.	74
Figure 14	Cutting balloon	79
Figure 15	Balloon catheters OTW and Monorail system	80
Figure 16	PalmazP308 stent.	86
Figure 17	Comparison of stent reconstruction.	87
Figure 18	Dissection at the end of the stent.	92

Figure 19	The angiogram shows multiple in-stent restenosis.	93
Figure 20	Nitinol stent.	95
Figure 21	Life stent flex star.	96
Figure 22	Long lesion treated with Zilver PTZ.	96
Figure 23	Corvita covered stent.	197
Figure 24	Long SFA occlusion.	97
Figure 25	Epic self-expanding nitinol stent.	102
Figure 26	Comparison between the two groups according to age.	106
Figure 27	Comparison between the two groups according to sex.	107
Figure 28	Comparison between the two groups according to risk factors.	108
Figure 29	Comparison between the two groups according to clinical presentation	109
Figure 30	Comparison between the two groups according to lesion characteristic.	111
Figure 31	Comparison between the two groups according to complications.	112
Figure 32	Cumulative 1ry patency rate in bypass surgery group	116
Figure 33	Cumulative 1ry patency rate in endovascular intervention group.	117
Figure 34	Cumulative 1ry patency rate in both studied groups.	118
Figure 35	Cumulative 1ry patency rate in both studied groups (log rank test)	118
Figure 36	Cumulative 1ry patency rate in both studied groups as regard diabetic status.	119
Figure 37	Cumulative limb salvage rate in bypass surgery group.	120

Figure 38	Cumulative limb salvage rate in endovascular intervention group.	121
Figure 39	Cumulative limb salvage rate in both studied groups	122
Figure 40	Cumulative limb salvage rate in both studied groups (log rank test).	123
Figure 41	Comparison between the two groups according to length of lesion (cm).	124
Figure 42	Comparison between the two groups according to type of lesion	125
Figure 43	Comparison between the two groups according to No. of patent distal Runoff	125
Figure 44	Relation between primary patency and clinical classification before intervention in the two groups at the end of 12 months follow up.	126
Figure 45	Case I: intervention with Epic self-expanding stent (7×120mm).	128
Figure 46	Case II: Intervention with balloon angioplasty (5×120mm).	129
Figure 47	Case III: Case of proximal and middle SFA occlusion.	130
Figure 48	Case IV: Case of middle and distal SFA occlusion.	131
Figure 49	Example of a case with big toe gangrene	132
Figure 50	Case V: Open surgical femoro-popliteal bypass supragenicular.	133
Figure 51	Case VI: open surgical femoro-popliteal bypass infragenicular.	134
Figure 52	Example of a case after bypass surgery with amputation of the little toe.	135

LIST OF TABLES

	Table	Page
Table 1	TASC I classification of SFA lesions.	19
Table 2	Clinical categories of chronic limb ischemia.....	23
Table 3	Comparison between Fontain stages and Rutherford category	24
Table 4	Definitions of Critical Limb Ischemia.....	25
Table 5	Comparison of different imaging method	37
Table 6	Complications of Angioplasty.	70
Table 7	Clinical improvement after interventions for lower extremity ischemia; gauge scale.	72
Table 8	Properties of angioplasty balloons.	84
Table 9	Different nitinol-stents for use in the femoro-popliteal tract.	88
Table 10	Potential pharmacological agents and mechanisms of action for stent-based clinical application.	90
Table 11	Demographic data in the two studied groups:	107
Table 12	Risk factors of the two groups:	108
Table 13	Clinical presentation the two groups	109
Table 14	Comparison between lesion characteristics in the two studied groups.	111
Table 15	Complications in the two studied groups:	112
Table 16	Comparison between the two groups according to changes in clinical picture:	113
Table 17	ABI during 12 months of follow up:	114
Table 18	Life table analysis of primary patency for bypass surgery group.	116
Table 19	Life table analysis of primary patency of endovascular group.	117
Table 20	Life table analysis of limb salvage rate in bypass surgery group.	120

Table 21	Life table analysis of limb salvage rate in endovascular group.	121
Table 22	Relation between primary patency and risk factors	123
Table 23	Primary patency and lesion characteristics in the two group	124
Table 24	Relation between primary patency and clinical presentation in the two studied groups	126

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تَعْلَمُ وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ

عَظِيمًا»

صدق الله العظيم

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الملخص العربي

العلاج بالقسطرة التداخلية للأوعية الدموية الطرفية شهد تطوراً كبيراً في خلال العقد الأخير للقرن العشرين وبدايات القرن الواحد والعشرون بعد أن كان العلاج الجراحي هو الوسيلة الوحيدة للعلاج لزمن طويل.

ويشمل هذا النوع من العلاج بالقسطرة التداخلية للأوعية الدموية الطرفية العديد من الأساليب و الطرق و منها على سبيل المثال توسيع الشرايين باستخدام البالون أو بواسطة تركيب دعامة أو اذابة الجلطة الشريانية أو الوريدية.

وتتميز الجراحة التداخلية عن الجراحة التقليدية في عدم الحاجة الى مخدر عام أو وجود جروح كبيرة وتقليل فترة الإقامة بالمستشفى وتقليل نسب الوفاة ومشاكل الجراحة التقليدية كما انه يمكن من استخدامها في بدايات المرض.

وقد أدى التطور في استخدام الجراحة التداخلية الى تطور مماثل في الأدوات المستخدمة حتى تزداد سهولة وفاعلية في الاستخدام.

مما استدعى جراحي الأوعية الدموية الى التعرف و التدريب علي استخدام تلك الوسائل مما مكنهم من استخدامها وتطويرها لصالح علاج مرضاهم.

ان الهدف من هذه الدراسة هو المقارنه بين العلاج الجراحي عن طريق توصيل الشريان الفخذي بالشريان المأبضى عن طريق الوريد الصافى أو الشرايين الصناعيه و العلاج بالقسطرة التداخلي باستخدام البالونات أو تركيب الدعامة في الشريان الفخذي السطحى.

ان نتائج هذه الدراسة الى عدم وجود فرق ملحوظ احصائيا بين كلا من طريقتي العلاج حيث ان نتائج الطريقتين متقاربه للغاية مع احتفاظ التدخل الجراحي عن طريق توصيل الشريان بنسبه أعلى في معدلات بقاء الشريان مفتوحا و غير مسدود و معدلات عدم البتر عن القسطرة التداخلية.

و ننصح بناء على نتائج هذا البحث باستخدام علاج انسداد الشريان الفخذي السطحى من الدرجة الثانية والثالثة أولا باستخدام القسطرة التداخلية و الإبقاء على التدخل الجراحي كمرحلة ثانيه في حالة الحاجة اليها.