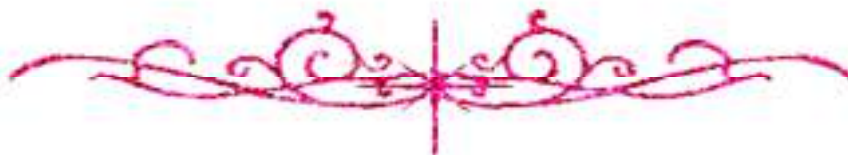


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بسم الله الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات
قسم التوثيق الإلكتروني



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على هذه الأقراص المدمجة قد أعدت دون أية تغييرات



Evaluation of Endovenous Laser Ablation in Management of Varicose Veins

Thesis

Submitted for partial fulfilment of Master Degree
in General Surgery

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

لَسْبِقَ أَنْكَ لَا نَعْلَمُ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

سورة البقرة الآية: ٣٢

Acknowledgments

*First and foremost, I feel always indebted to **Allah**, the Most Beneficent and Merciful who gave me the strength to accomplish this work,*

*I wish to express my deepest thanks and respect for **Prof.Dr. Tarek Ismail Ouf**, Professor of General Surgery, Faculty of Medicine – Ain Shams University, for his valuable supervision, guidance and kind advices throughout this work. I really have the honor to complete this work under his supervision.*

*I'm very grateful to **Prof.Dr. Mohamed Ali Nada**, Professor of General Surgery, Faculty of Medicine – Ain Shams University, who saved great efforts and time in guiding, helping and supporting me. I greatly appreciate his help and guidance.*

*Great thanks to **Dr. Abdelrahman Mohamed Salem**, Assistant Professor of Vascular Surgery, Faculty of Medicine – Ain Shams University, for his cooperation and fruitful guidance throughout the whole work,*

*Last but not least, I can't forget to thank with all appreciation all members of my **Family**, specially my **parents** and my **Husband** for their support and encouragement in every step of my life.*



Nada Yasser Ahmed Lotfy El-Zefzaf

List of Contents

<i>Subject</i>	<i>Page No.</i>
List of Abbreviations	i
List of Tables	iii
List of Figures	iv
List of Cases	
Introduction	1
Aim of the Work.....	3
Review of Literature	
History of varicose vein treatment.....	4
Anatomical Considerations.....	7
Pathophysiological considerations.....	11
Investigations	13
Modalities of treatment	17
Patients and Methods.....	46
Results.....	65
Illustrative Cases	81
Discussion	98
Summary	116
Conclusion.....	117
References	118
Arabic Summary	

List of Abbreviations

<i>Abbr.</i>	<i>Full-term</i>
UGFS	: Ultrasound guided foam sclerotherapy
EVTA	: Endovenous thermal ablation
EVLA	: Endovenous laser ablation
GSV	: Great saphenous vein
SFJ	: Saphenofemoral junction
FDA	: Food and Drug Administration
EVLA	: Endovenous laser ablation
SFJ	: Saphenofemoral junction
SSV	: Small saphenous vein
CVD	: Chronic venous disease
PIN	: Perforation- invagination
SSV	: Small saphenous vein
ASVAL	: Ablation Sélective des Varices sous Anésthésie Locale
EVLTA	: Endovenous laser ablation
SVS	: Steam vein sclerosis
RF	: Radiofrequency ablation
TDS	: Tetradecyl sulfate
EVLA	: Endovenous Laser Ablation
RCT	: Randomized controlled trial
CEAP	: Clinical Etiologic Anatomic Pathophysiologic

List of Tables

<i>Table No.</i>	<i>Title</i>	<i>Page No.</i>
Table (1):	The demographic data of the studied patients.....	66
Table (2):	Clinical classification of the studied patients.....	68
Table (3):	Anatomical classification of the studied patients: (N=32 limbs in 30 patients)	70
Table (4):	The main symptoms in the studied patients: (30 patients).....	72
Table (5):	Duplex study of the studied patients	74
Table (6):	Post-operative duplex in the studied patients.....	76
Table (7):	Parameters of the Laser beam	77
Table (8):	Sclerotherapy in the studied patients (N=32 limbs in 30 patients)	78
Table (9):	Post-operative complications of EVLT in the studied patients (30 patients).....	79

List of Figures

<i>Figure No.</i>	<i>Title</i>	<i>Page No.</i>
Figure (1):	Relationship between fascia and veins of the lower extremity.....	8
Figure (2):	Position of patient and probe during duplex scan of the lower limb	13
Figure (3):	Transverse view of common femoral vein and artery in the right groin.	15
Figure (4):	The saphenous eye.....	16
Figure (5):	Skin marking after duplex examination just the day prior to the procedure.....	25
Figure (6):	Preparation of the sclerosant material before injection	29
Figure (7):	Duplex imaging showing GSV after injection sclerotherapy.....	29
Figure (8):	Identification of GSV ultrasound guided before injecting local tumescent anesthesia.	31
Figure (9):	Endovenous ablation.	33
Figure (10):	EVLA equipment. (A) Laser generator and foot pedal (b) Laser Fibers	33
Figure (11):	Instillation of tumescence in the saphenous compartment Note the proximal vein collapsed and approximated to the laser fiber	39
Figure (12):	Superficial epigastric vein. Landmark for positioning tip of fiber. Laser fiber tip at optimal site	41
Figure (13):	GSV marked enlargement in 2 different patients.....	49

Figure (14): Portable laptop duplex	50
Figure (15): Duplex scan of GSV	51
Figure (16): Characteristic SFG & GSV reflux ≥ 0.5 seconds.....	51
Figure (17): The GSV was cannulated at ankle level via venous cutdown	53
Figure (18): Introducing calibrated sheath with SFJ duplex monitoring	54
Figure (19): Laser fiber inside dilator placed through the sheath.	55
Figure (20): Tumescence anesthesia injected via spinal needle under DUX scan.....	56
Figure (21): Longitudinal (A) and cross-sectional (B) views of DUS during tumescence.	57
Figure (22): Illustration of Diode ARC Laser system (cherolase) and the protective eye glasses.....	58
Figure (23): The laser system in action 12 watt pulsed waves 2 m sec intervals	59
Figure (24): Post-operative tourniquet in 45 degrees up	60
Figure (25): Injection of residual tributaries after Laser therapy using foam injection.	61
Figure (26): Post-operative duplex follow up obliterated GSV	63
Figure (27): Incompetent GSV prior to EVLT (A). Occluded GSV after EVLT (B).....	64
Figure (28): Bar chart showing age average	Error! Bookmark not defined.
Figure (29): Pie chart showing sex distribution.....	67
Figure (30): Pie chart showing percentage of the affected limb. (N=32 limbs in 30 patients)	67

Figure (31): Pie chart showing clinical classification of the studied patients.	69
Figure (32): Column chart showing clinical classification of the studied patients.....	69
Figure (33): Pie chart showing anatomical classification of varicose vein in the studied patients.	70
Figure (34): Column chart showing anatomical classification of varicose vein in the studied patients.....	71
Figure (35): Pie chart showing the main symptoms in the studied patients.	72
Figure (36): Bar chart showing the main symptoms in the studied patients.	73
Figure (37): Pie chart showing duplex study of the studied patients.....	74
Figure (38): Bar chart showing duplex study of the studied patients.	75
Figure (39): Pie chart showing type of anesthesia used in the studied patients.	76
Figure (40): Bar chart Sclerotherapy in the studied patients.....	78
Figure (41): PIE chart showing postoperative complications of EVLT in the studied patients.....	79
Figure (42): Bar chart showing post-operative complications of EVLT in the studied patients.	80

Abstract

Background: There have been tremendous changes to the treatment of varicose veins over the years. High ligation of the SFJ and stripping of the GSV have been considered as standard treatments for GSV insufficiency for more than one century and it is still adopted as the preferred method in the majority of the surgical centers. **Aim of the Work:** To discuss the advances in the treatment of varicose veins and their advantages over traditional methods in an attempt to choose the best method of treatment with least complications and highest success rate of cure and to review the recently advanced endovenous laser ablation as a promising line of management of primary varicose veins. **Patients and Methods:** This observational prospective was conducted on 30 patients 30 patients with varicose veins in multiple centers carrying out endovenous laser ablation.during the period from October 2017 till March 2018. **Results:** After the EVL ablation +/- sclerotherapy, no major complications occurred, minor complication however, was quite common and included bruising (33.3%), ecchymosis (16.6%), postoperative pain (66%) that require analgesic, superficial thrombophlebitis (16.6%) and skin burn (3.3%). **Conclusion:** EVLA is continuing to be an outstanding minimal invasive method for treatment of varicose veins with minimal complications and a very short recovery period which sounds appealing to the patients.

Key words: endovenous Laser Ablation, Varicose Veins

Introduction

The venous system of the legs acts as “a reservoir to store blood and as a conduit to return the blood to the heart” (*Eberhardt and Raffetto, 2014*). Blood is transported from the leg to the heart through a network of veins in the lower extremity. Compared to arteries, veins have thinner walls and “a weaker muscular layer and less elastic tissue” thus making them stiffer (*Black, 2014*).

There are three venous systems within the leg: the deep, superficial and perforating systems. Leg veins are “classified according to their relationship within the muscular fascia and are located in either the deep or superficial compartment” (*Black, 2014*).

Varicose veins are dilated, tortuous veins of the superficial venous system (*Allegra et al., 2007*).

In the past, saphenous varicose veins were mainly treated surgically by means of high ligation with or without stripping. Ultrasound guided foam sclerotherapy (UGFS) has been used since 1997 and was the first minimally invasive treatment option. However, since 2000, endovenous thermal ablation (EVTA) using laser, radiofrequency, or steam has become more popular (*Hamann et al., 2017*).

Endovenous laser ablation (EVLA) procedure is currently a well-established treatment modality for the entire incompetent great saphenous vein (GSV) segment. Laser energy is used to destroy the GSV in situ in combination with tumescent anesthesia (*Ignatieva et al., 2017*).

Endovenous techniques have revolutionized the treatment of truncal varicose veins, and endovenous laser ablation has become the recommended first-line treatment method, achieving occlusion rates of greater than 90% (*Leung et al., 2016*).

EVLA is thought to minimize morbidity after treatment compared with surgery, including avoidance of a groin incision and dissection at the saphenofemoral confluence, which has been reported to result in a lower complication rate and reduce posttreatment discomfort and pain, with a faster resumption of normal activity (*Agus et al., 2006*).

Aim of the Work

- To discuss the advances in the treatment of varicose veins and their advantages over traditional methods in an attempt to choose the best method of treatment with least complications and highest success rate of cure.
- To review the recently advanced endovenous laser ablation as a promising line of management of primary varicose veins.