

## Chapter 4

# COMPARISON OF ENDOVASCULAR LASER ABLATION WITH NONTUMESCENT N-BUTYL CYANOACRYLATE VENA SAPHENA MAGNA ABLATION

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### INTRODUCTION:

Chronic venous insufficiency and varicose vein disease is an important venous pathology responsible for significant morbidity. It may present a series of findings including lower extremity edema, pigmentation and venous ulcers.(Bergan, Schmid-Schönbein & Smith, 2006)

Venous insufficiency treatment has changed dramatically in the last decade. Traditional methods are being introduced to modern invasive-endovenous methods and new technologies are introduced every year. Traditional methods such as ligation and stripping are associated with many complications including hematoma and paresthesia. (Almeida & *et al.*, 2009) Long recovery times associated with conventional methods reduce the popularity of these methods.(Winterborn, Foy & Earnshaw, 2004) Foam sclerotherapy is the most widely used minimally invasive technique for the treatment of venous insufficiency and varicose vein disease worldwide, but high recurrence rates have been observed. (Jia & *et al.*, 2007) Side effects such as air embolism, headache, pulmonary embolism and deep vein thrombosis (DVT) are the major disadvantages of this therapy. (Jia & *et al.*, 2007)

Endovascular ablation techniques such as laser (EVLA) and radiofrequency ablation are widely used and proven therapies. The results are basically similar, and both reach approximately 90% of long-term success rates. (Puggioni & *et al.*, 2005, Rasmussen & *et al.*, 2013)Although thermal ablation has less complication compared to open surgical methods, the need for side effects such as edema, burns, pigmentation, paresthesia and the need for anesthesia are inevitable. (Puggioni & *et al.*, 2005- Almeida & *et al.*, 2015)

Although the current techniques are successful, the search for new innovative techniques with the goal of increasing the success rate, improving the patient's

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