



HEMODYNAMIC SAPHENOUS PRESERVING PROCEDURES IN CHRONIC VENOUS DISEASE

CAN, AND SHOULD, WE PRESERVE THE SAPHENOUS VEIN?

EDITORS:
FELIPE PURICELLI FACCINI
CLAUDE FRANCESCHI
STEFANO ERMINI

Hemodynamic Saphenous Preserving Procedures in Chronic Venous Disease

Can, and should, we preserve the saphenous vein?

Editors:
Felipe Puricelli Faccini
Claude Franceschi
Stefano Ermini

Authors

Brazil

Alexandre Roth de Oliveira

MD/ MSc/ Professor of Anesthesiology at UNISINOS

Ani Arendt

Member and Ultrasound specialist of Brazilian Society of Angiology and Vascular Surgery.
Academic doctor at Grupo Hospitalar Conceição

Claudia Sathler-Melo

Member and Ultrasound specialist of Brazilian Society of Angiology and Vascular Surgery

Fanilda Barros

Member and Ultrasound specialist of Brazilian Society of Angiology and Vascular Surgery and
Fellow of the Vascular ultrasound by the Jobst Vascular Center - University of Michigan USA.

Felipe Puricelli Faccini

MD, M.Sc. Member of Brazilian Society of Angiology and Vascular Surgery. Vascular surgeon at
Instituto de Cardiologia em Porto Alegre. Founder of Instituto Pró-Safena and Pro-saphenous
Mentoring in Brazil. Member of the Global CHIVA Advisory Panel.

Ivia Binotto

Member of Brazilian Society of Angiology and Vascular Surgery

Joana Storino

Assistant professor of anatomy at CMMG and Member of Brazilian Society of Angiology and
Vascular Surgery.

China

Sophie Zhu

Attending doctor at Smile Medical Group, China. Member of the Global CHIVA Advisory Panel.

Colombia

Alberto Muñoz

Chair Vascular and Endovascular Unit
Colombia National University Hospital-Clinica Vascular de Bogota
Professor Surgery- Colombia National University

Andres Jimenez

Colombia National University.

France

Claude Franceschi

Developer of the CHIVA technique. Centre Marie Thérèse, Hôpital Saint Joseph Paris, and Hôpital
Salpêtrière, Paris, France.

Germany

Erika Mendoza

Venenpraxis Wunstorf, Germany

Italy

Fausto Passariello

Physicist and vascular surgeon, Editor in Chief of the Journal of Theoretical and Applied Vascular Research (JTAVR), Vasculab Foundation ONLUS, Naples, Italy. www.vasculab.it

Massimo Cappelli

Private Office, Firenze, Italy.

Roberto Delfrate

Surgery Unit, Figlie di San Camillo Hospital, Cremona, Italy

Stefano Ermini

Private practice. Veneinforma, Grassina, Florence, Italy

Spain

José Maria Escribano

Hospital Universitari Vall d'Hebron. Barcelona. Spain

Sergi Bellmunt

Hospital Universitari Vall d'Hebron. Barcelona. Spain

Hemodynamic Saphenous Preserving Procedures in Chronic Venous Disease

DOI: <https://doi.org/10.5281/zenodo.6490237>

Glossary

1. Chronic Venous Insufficiency - A proactive approach.	9
<i>Felipe Puricelli Faccini, Claudia Sathler-Melo and Claude Franceschi</i>	
2: Duplex anatomy of the leg veins.....	22
<i>Fanilda Barros, Cláudia Sathler-Melo, Joana Storino</i>	
3 - Fluid mechanics for the non-specialist. with application to venous ultrasound investigations	55
<i>Fausto Passariello</i>	
4 - Reflux patterns and Types of shunts	67
<i>Felipe Faccini, Stefano Ermini and Claude Franceschi</i>	
5 - Perforators: Hemodynamic viewpoint	91
<i>Felipe Faccini and Stefano Ermini</i>	
6 - Pelvic leaks	107
<i>Roberto Delfrate</i>	
7 - Hemodynamic patterns of stripping recurrence.	137
<i>Stefano Ermini and Felipe Faccini</i>	
8 - CHIVA for Beginners	150
<i>Felipe Faccini and Claude Franceschi</i>	
9 - CHIVA for Specialists	166
<i>Felipe Faccini, Stefano Ermini and Claude Franceschi</i>	

10 - CHIVA CASES	182
<i>Sophie Zhu</i>	
11 - CHIVP - Hemodynamic Deep Reflux Treatment	208
<i>Claude Franceschi and Felipe Faccini</i>	
12 - CHIVA Results and Scientific Evidences.....	219
<i>Jose Maria Escribano and Sergi Bellmunt</i>	
13 - CHIVA Perioperative and Long-term Care	227
<i>Felipe Faccini, Ani Arendt, Ivia Binotto and Alexandre Roth de Oliveira</i>	
14 - Sclerotherapy and CHIVA.....	237
<i>Erika Mendoza and Massimo Cappelli</i>	
15 - Hemodynamic Laser + Sclerotherapy Protocol	265
<i>Felipe Faccini and Claudia Sathler-Melo</i>	
16 - ASVAL.....	275
<i>Claudia Carvalho Sathler-Melo</i>	
17 - CHIVA - The GSV for arterial bypass.....	291
<i>Roberto Delfrate</i>	
18 - Techniques for arterial bypass using a dilated saphenous vein	308
<i>Alberto Muñoz and Andres Jimenez</i>	

PREFACE

When less is more. That is the feeling when I finished reading the book about saphenous preservation, written and organized by the colleague and friend Felipe Faccini. He was masterful to invite experienced authors to create a focused and concentrated book that will certainly change the comprehension of venous hemodynamics and the principles of CHIVA technique.

The human being has a natural resistance to changes and tendency to oppose new, unfamiliar things. This is particularly true in the case in which the problem to be solved already has several methods to deal with it. The treatment of the saphenous vein with reflux has several current treatment possibilities. The saphenous-stripping, thermal ablations (laser, radiofrequency), glue, foam, high-frequency ultrasound among others are commonly performed, and they all have one thing in common, the destruction of the saphenous vein. On the other hand, the disruptive technique CHIVA breaks the tradition of destroying the vein with a new concept of preserving the vein based on hemodynamic knowledge. Those of us that do surgeries have already needed a vein for a graft and there was no vein to do it. This is valid for limb salvage and also for coronary bypass and depicts the importance of the saphenous preservation.

In the first chapter, the book presents a valid question: Are we over treating the saphenous vein? The introduction of new techniques made the procedures less invasive and easy to do and recover, the answer is yes. This book presents a technique that is not new, but is not largely known and used. As the authors comment,

it needs study and a learning curve. Thus, the surgeon needs to believe in the benefit to the patients if he/she is about to change the current practice and spend time to learn the technique.

This book presents the pathway to change the current practice in an easy-to-understand and objective manner. The first chapter is a reflection of current practice and provokes the reader to prepare for the rest of the book. The rest of the book presents clearly and comprehensively hemodynamics and principles of saphenous preservation technique. The contents are suitable for the starter and also for knowledgeable specialists. The results are presented with scientific evidences and the book also gives us chapter about ASVAL, hemodynamic sclerotherapy and hemodynamic laser+sclerotherapy. A book that teaches, updates and convinces.

I believe reading this book is pivotal to the colleagues who constantly seek the utmost objective of our profession, an excellence service to the patients. I invite the colleagues to think in an empathic manner when they are about to indicate the elimination of a saphenous vein. We should think if this procedure, independent on the technique used, is the best that we can offer to our patient.

I finish with the words I started, less is more. Less elimination of the saphenous vein, better and long-lasting results. I congratulate the authors for the excellent job. An easy, detailed and captivating book, indispensable for the good modern practice of vascular surgery, focused on the quality-of-life of the patients.

Bruno de Lima Naves, President of the Brazilian Society of Angiology and Vascular Surgery, SBACV 2020/2021.