

The impact of simultaneous GSV and AASV treatment

-

The SYNCHRONOUS trial

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Disclosure

TOBIAS HIRSCH

I have the following potential conflicts of interest to report:

- Consulting: Medtronic, Biolitec
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest





f, 42 years old, Villalta 4

History:

ClosureFast on right GSV in 2004

Is it necessary to simultaneously treat the AASV?



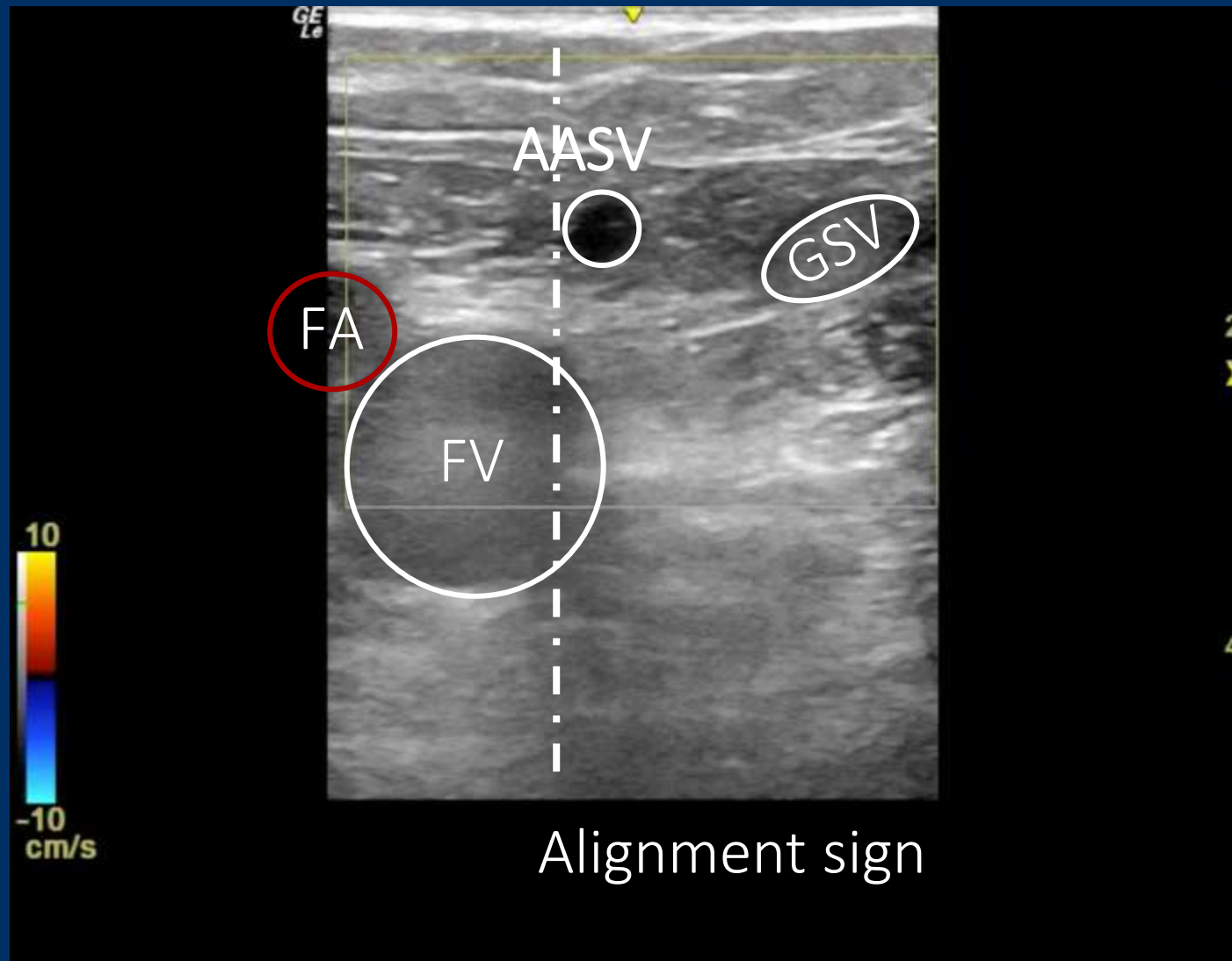
Simultaneous treatment of GSV and AASV

Sonogram



Simultaneous treatment of GSV and AASV

Sonogram

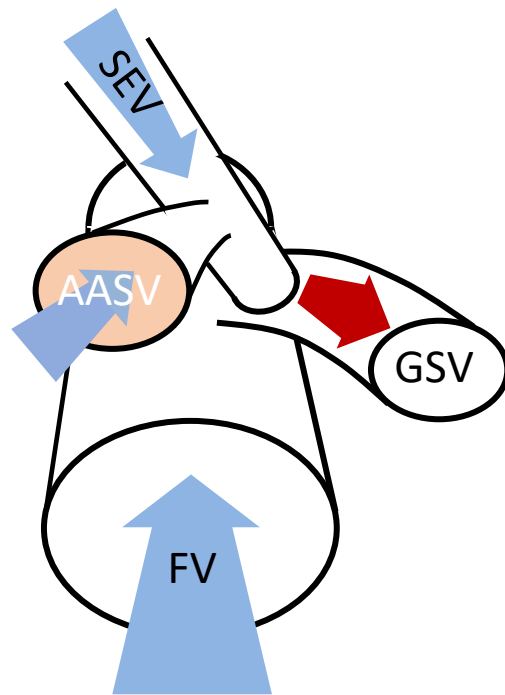


The AASV is a major cause of recurrence



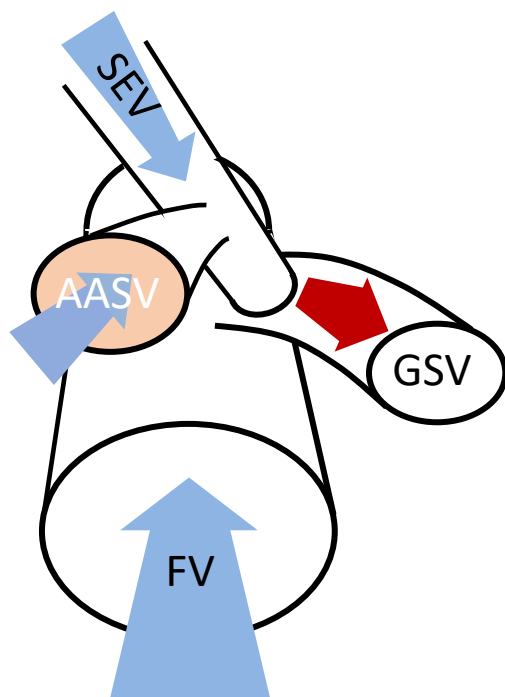
The AASV is a major cause of recurrence

before ablation

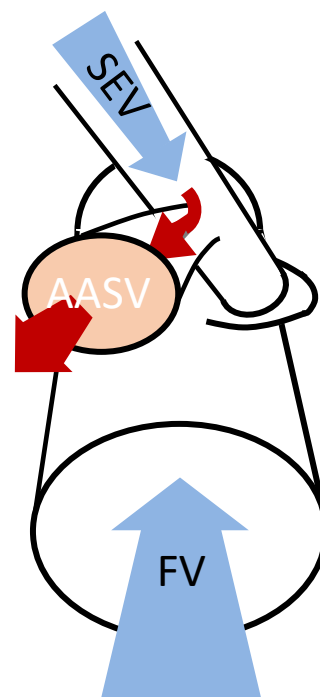


The AASV is a major cause of recurrence

before ablation



after ablation



The AASV is a major cause of recurrence



The Royal College of Surgeons of England

Ann R Coll Surg Engl 2003; **85**: 389–392

Audit

The lateral accessory saphenous vein – a common cause of recurrent varicose veins

JP Garner, PSJ Heppell*, PW Leopold

Department of Vascular Surgery, Frimley Park Hospital, Camberley, Surrey GU16 5UJ, UK

216 recurrent varicosities after stripping/HL, FU 36 months (2003)

Table 1 Site of recurrence

Site of recurrence	Number of cases (%)
Groin	141 (65)
Thigh perforator	37 (17)
Calf perforator	19 (9)
SPJ/SSV	19 (9)



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Table 2 Causes of groin recurrence and type of primary surgery

Causes of groin recurrence	Number of cases (%)	Primary surgery		
		S	L	U
Lateral accessory saphenous vein	61 (43)	53	8	0
Residual main LSV	45 (30)	16	14	3
Medial tributary	22 (16)	16	4	2
Neovascularisation alone	15 (11)	11	2	2

S, LSV stripped; L, LSV ligated but not stripped; U, unknown primary procedure.



The AASV is a major cause of recurrence

Research Article

Factors Associated with Recurrence of Varicose Veins after Thermal Ablation: Results of The Recurrent Veins after Thermal Ablation Study

R. G. Bush,¹ P. Bush,¹ J. Flanagan,² R. Fritz,³ T. Gueldner,⁴ J. Koziarski,⁵ K. McMullen,⁶ and G. Zumbro⁷

REVATA: n=2,380, 164 recurrence after 36 months (2014)

TABLE 3: Repeat US AAGSV.

	Frequency	Percent	Valid percent	Cumulative percent
Recanalized AAGSV total	2	1.2	1.2	1.2
Recanalized AAGSV partial	2	1.2	1.2	2.4
New reflux AAGSV	40	24.4	24.4	26.8
Ablated	6	3.7	3.7	30.5
Normal	114	69.5	69.5	100.0
Total	164	100.0	100.0	

The AASV is a major cause of recurrence

The *Scientific World Journal*

Original Article

Phlebology

Recurrence patterns after endovenous laser treatment of saphenous vein reflux

Ronald S Winokur, Neil M Khilnani and Robert J Min

Phlebology

2016, Vol. 31(7) 496-500

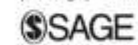
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1,159 veins, 79 recurrent, FU: 1 month to 5 years (2016)

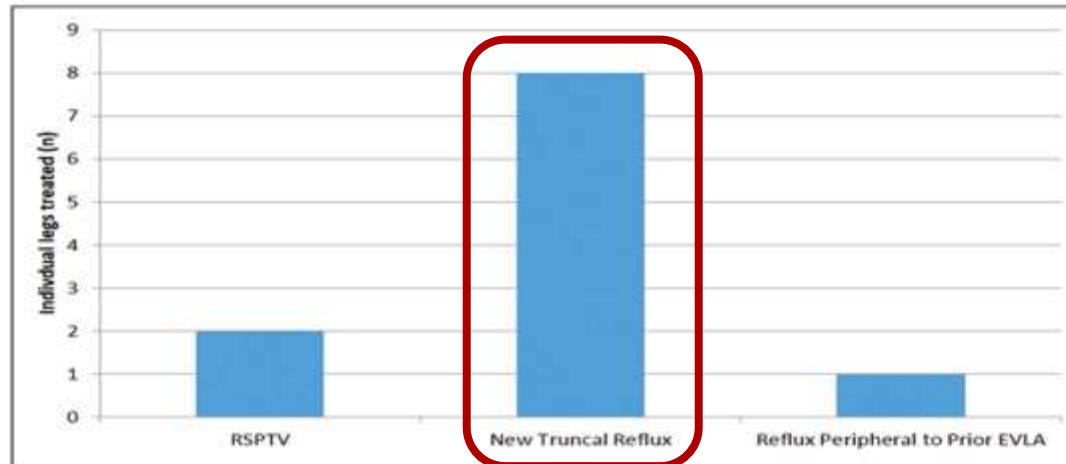


Figure 2. Number of recurrences by pattern of recurrence for patients that recurred greater than five years after initial treatment. The patterns of reflux are Recanalized Segment of Previously Treated Vein (RSPTV), New Truncal Reflux (new reflux in the GSV, AAGSV, PAGSV, or SSV not previously treated), reflux peripheral to prior EVLA and early recurrence. EVLA: endovenous laser ablation.



The AASV is a major cause of recurrence

The Scientific World JOURNAL

Randomized clinical trial comparing endovenous laser ablation and stripping of the great saphenous vein with clinical and duplex outcome after 5 years

Lars Rasmussen, MD, Martin Lawaetz, MB, Lars Bjoern, MD, Allan Blemings, MSc, and Bo Eklof, MD, PhD, *Naestved, Denmark*

JOURNAL OF VASCULAR SURGERY
August 2013

n = 137, S/HL vs. EVLA (2013)

Table II. Comparison of cumulative recurrence rates and source of reflux in patients 5 years after treatment with surgery or EVLA

<i>n = legs</i>	<i>Surgery</i> (<i>n = 68</i>), No. (%)	<i>EVLA</i> (<i>n = 69</i>), No. (%)	P
Clinical recurrence	24 (35)	25 (36)	.9
Technical failure	2 (3)	3 (4)	.66
Reflux into the GSV	2 (8)	3 (12)	.66
Reflux into the AAGSV	3 (13)	6 (24)	.31
Reflux in the groin	1 (4)	2 (8)	.57
Reflux in thigh perforators	8 (33)	5 (20)	.37
Reflux in lower leg perforators	1 (4)	4 (16)	.18

AAGSV, Anterolateral accessory great saphenous vein; *EVLA*, endovenous laser ablation; *GSV*, great saphenous vein.



The AASV has its own pathological importance



The AASV has its own pathological importance



The AASV has its own pathological importance

Original Article

The refluxing anterior accessory saphenous vein demonstrates similar clinical severity when compared to the refluxing great saphenous vein

Marlin W Schul¹, Barrett Schloerke² and Guilherme Maia Gomes²

Phlebology
Phlebology
2016, Vol. 31 (9) 654–659
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DOI: 10.1177/0268355515604532
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290 legs), Follow-up 6 months (2016)

	AASV	GSV	control
C3	7 (30,4%)	35 (24,1%)	7 (9,0%)
C4	3 (13,0%)	8 (5,5%)	1 (1,3%)
C5	1 (4,3%)	5 (3,4%)	1 (1,3%)
C6	1 (4,3%)	3 (2,1%)	1 (1,3%)



The SYNCHRONOUS trial

“A multicentre, prospective, controlled, clinical study to evaluate the impact of a **synchronous treatment of the anterior accessory saphenous vein for prevention of recurrent varicose veins** in patients undergoing thermal ablation of an insufficient great saphenous vein”

conducted on behalf of the German Society of Phlebology



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VENEN-FACHPRAXIS
REGENSBURG
Schwerpunkt endovaskuläre Venenchirurgie



Drs. med.
Wenzel/Mattausch
Leipzig



The SYNCHRONOUS trial

Endpoints

Primary endpoint:

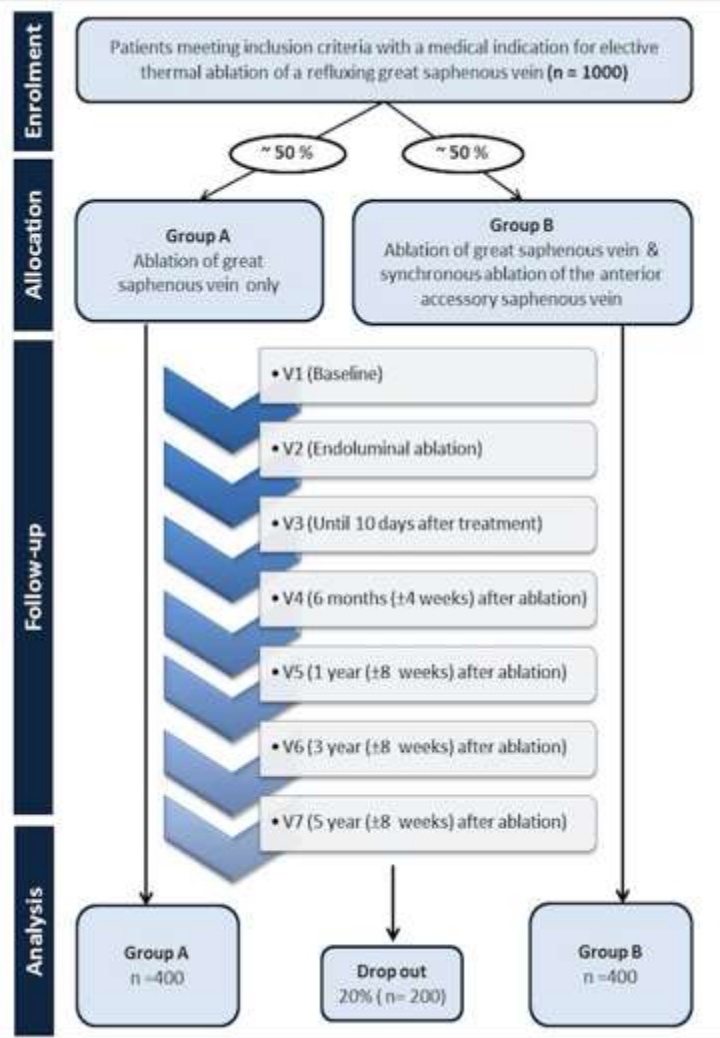
- Impact of a synchronous treatment of the AASV for prevention of recurrent varicose veins

Secondary endpoints:

- Complication rate
- Postoperative pain intensity
- AVVQ
- VCSS



The SYNCHRONOUS trial



The SYNCHRONOUS trial

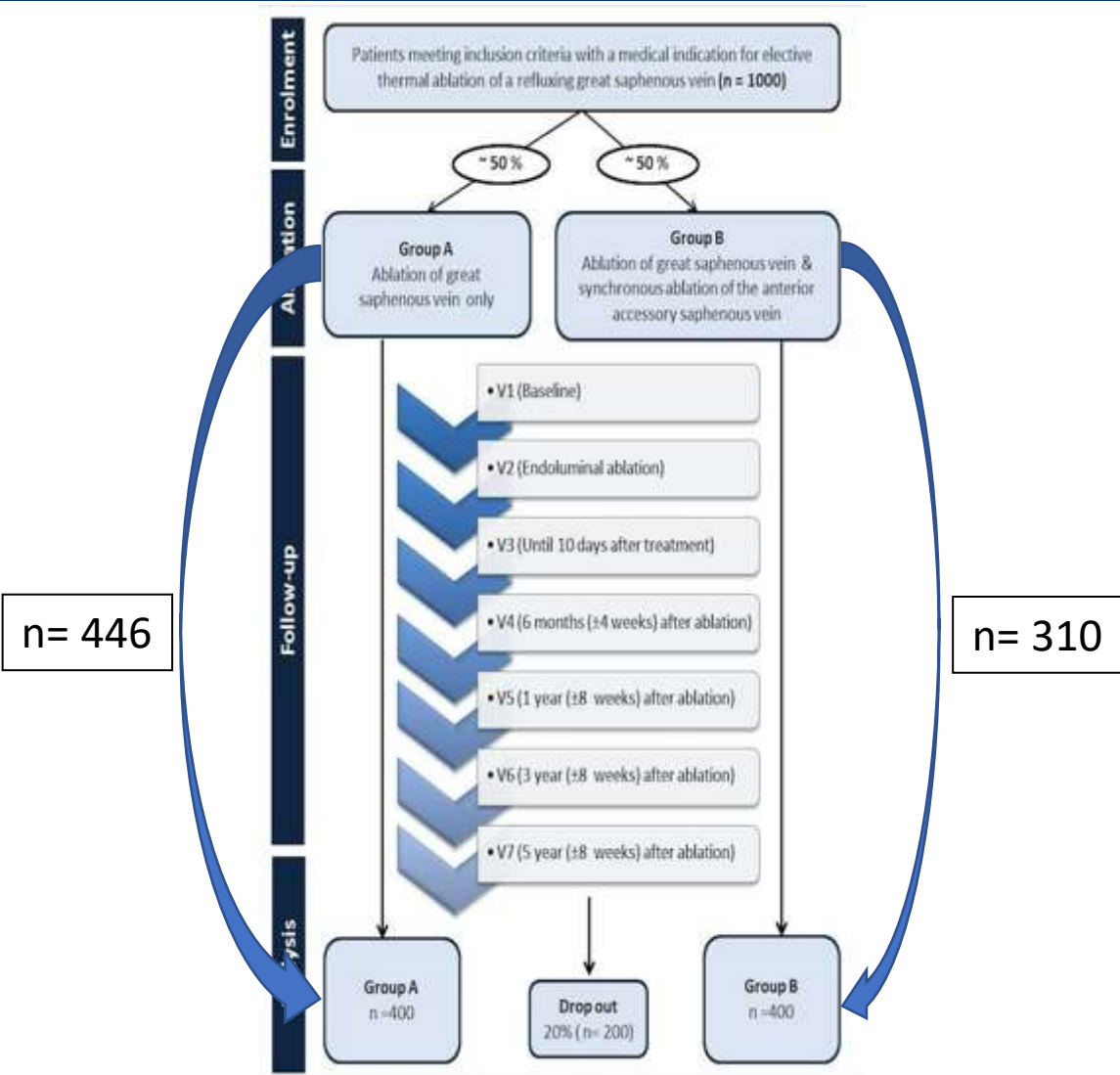
Milestones

- Planning phase, statistics
- Completion of study protocol
- Ethics committee vote
- DRKS registration 0001548
- Financing – research grant from DGP
- Completion of case report form
- Patient recruitment → first patient in: 7/2/2019

765



The SYNCHRONOUS trial



The SYNCHRONOUS trial

Synchronous – Baseline Characteristics

N = 765	
Age	50.5 years
Gender	62% female
BMI	27
SFJ/AASV at baseline (Groups A + B)	
AASV not present	23%
SFJ: AASV → GSV	42%
SFJ: AAVS → FV	5%
SFJ: AAVS → SEV → GSV / FV	30%

The SYNCHRONOUS trial

Conclusion:

- Interesting dynamic at the SFJ:
 - AASVs become visible after endoluminal ablation of the GSV and 30% are occluded unintentionally.
Some reopen over time.
 - An increasing number become insufficient over time (these veins are larger in diameter at baseline compared to other patients)
- Further follow up visits and data analysis are outstanding. Initial one year data coming soon



The SYNCHRONOUS trial

Conclusion:

- Data about secondary insufficiency of the AASV is generated in a prospective controlled setting for the first time.



Thank you for your attention!



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