

**Quelles questions  
ont encore besoin  
de réponses après**

**What  
questions  
still need  
answers after**



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## Disclosure

Speaker name: Fannie Forgues

- ☐ I have the following potential conflicts of interest to report:
  - ☐ Consulting
  - ☐ Employment in industry
  - ☐ Shareholder in a healthcare company
  - ☐ Owner of a healthcare company
  - ☐ Other(s)
- ☒ I do not have any potential conflict of interest

ORIGINAL ARTICLE

## A Randomized Trial of Early Endovenous Ablation in Venous Ulceration

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for the EVRA Trial Investigators\*

Give an  
answer to an old  
question



- small ulcer
- short duration
- without arteriopathy

# in other patients?

6555 Patients were assessed for eligibility

6105 Were excluded  
 1772 Had ulcer duration >6 mo  
 873 Had ABI <0.8 or arterial ulcer or both  
 610 Had ulcer healed by the time of randomization  
 568 Did not have ulcer  
 496 Were withdrawn by clinician  
 434 Declined to participate  
 393 Had other type of ulcer: dermatologic, diabetic foot, or mixed  
 378 Did not have venous disease  
 267 Had insufficient superficial venous reflux to warrant ablation  
 199 Had deep venous occlusive disease precluding superficial venous intervention  
 71 Were unable to provide consent  
 35 Were unable to adhere to compression therapy  
 9 Had other reason

3681  
patients

450 Underwent randomization

Why?





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## **Risk factors for delayed healing in venous leg ulcers: a review of the literature.**

Parker CN<sup>1</sup>, Finlayson KJ<sup>1</sup>, Shuter P<sup>1</sup>, Edwards HE<sup>2</sup>.

**RESULTS:** Twenty-seven studies, of mostly low-level evidence (Level III and IV), identified risk factors associated with delayed healing. Risk factors that were consistently identified included: larger ulcer area, longer ulcer duration, a previous history of ulceration, venous abnormalities and lack of high compression. Additional potential predictors with inconsistent or varying evidence to support their influence on delayed healing of venous leg ulcers included: decreased mobility and/or ankle range of movement, poor nutrition and increased age.

**Does early endovenous  
ablation lead to the same  
results in patients with  
risk factor of delayed  
healing ?**

# According to the type of intervention

## Type of endovenous intervention

|  |            |            |
|--|------------|------------|
| Endothermal ablation only§                       | 71 (31.7)  | 54 (23.9)  |
| Foam sclerotherapy only¶                         | 111 (49.6) | 100 (44.2) |
| Mechanochemical ablation only                    | 5 (2.2)    | 1 (0.4)    |
| Endothermal ablation and foam sclerotherapy§¶    | 27 (12.1)  | 16 (7.1)   |
| Mechanochemical ablation and foam sclerotherapy¶ | 3 (1.3)    | 0          |
| Abandoned treatment                              | 1 (0.4)    | 0          |
| No treatment                                     | 6 (2.7)    | 55 (24.3)  |

**Does a type of  
intervention allow faster  
healing than another?**

**Do we need a  
comparative trial of  
different interventions in  
C6 patients?**



# What about compression?

groups. Such effective compression therapy is probably not commonplace outside randomized trials, which may help explain the much slower healing times seen in the “real world.”<sup>23,24</sup> Accordingly, the improvement in ulcer healing with early endovenous intervention is likely to be greater in clinical practice than was observed in this trial. Because endovenous intervention is usually performed as a single procedure, the clinical benefits are likely to be less dependent on ongoing patient adherence than they would be with compression therapy.

**Are you sure that  
endovenous ablation  
without compression is at  
least as effective as  
compression alone ?**

**Do we need a new trial  
comparing endovenous  
ablation alone and  
compression alone?**

# About ulcers recurrences

Comparison of endovenous ablation techniques, foam sclerotherapy and surgical stripping for great saphenous varicose veins. Extended 5-year follow-up of a RCT

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## ABSTRACT

**BACKGROUND:** This study compares the outcome 5 years after treatment of varicose veins with endovenous radiofrequency ablation (RFA), endovenous laser ablation (EVLA), ultrasound guided foam sclerotherapy (UGFS) or high ligation and stripping (HL/S) by assessing technical efficacy, clinical recurrence and the rate of reoperations.

**METHODS:** Five hundred patients (580 legs) with Great Saphenous Vein (GSV) reflux and varicose veins were randomized to one of the 4 treatments. Follow-up included clinical and duplex ultrasound examinations.

**RESULTS:** During 5 years there was a difference in the rate of GSV recanalization, recurrence and reoperations across the groups,  $KM P < 0.001$ ,  $P < 0.01$ ,  $P < 0.001$  respectively. Thus 8 in the RFA group (Kaplan Meier [KM] estimate 5.8%), 8 in the EVLA group (KM estimate 6.8%), 37 (KM estimate 31.5%) in the UGFS group and 8 in the HL/S group (KM estimate 6.3%) of GSVs recanalized or had a failed stripping procedure. Nineteen (RFA) (KM estimate 18.7%), 42 (EVLA) (KM estimate 38.6%), 28 (UGFS) (KM estimate 31.7%) and 38 (HL/S) (KM estimate 34.6%) legs developed recurrent varicose veins. Within 5 years after treatment, 19 (RFA) (KM estimate 17%), 19 (EVLA) (KM estimate 18.7%), 43 (UGFS) (KM estimate 37.7%) and 25 (HL/S) (KM estimate 23.4%) legs were retreated.

**CONCLUSIONS:** More recanalization's of the GSV occurred after UGFS and no difference in the technical efficacy was found between the other modalities during 5-year follow-up. The higher frequency of clinical recurrence after EVLA and HL/S cannot be explained and requires confirmation in other studies.

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**Key words:** Varicose veins - Endovascular procedures - Saphenous vein - Therapeutics - Ablation techniques - Surgery.

# Leg Ulcer Recurrence and its Risk Factors: A Duplex Ultrasound Study before and after Vein Surgery

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**Objectives.** Assessment of risk factors for ulcer recurrence in chronic leg ulcer patients treated by varicose vein surgery.

**Design.** Retrospective follow-up study.

**Materials.** 62 patients, 43 women and 19 men (Median = 56.5 years, range 24–77) with the CEAP classifications of C<sub>5</sub>–C<sub>6</sub> and E<sub>P</sub> (primary venous insufficiency).

**Methods.** Patients underwent colour duplex ultrasound (CDU) investigation before varicose vein surgery. Post-operatively CDU, ambulatory venous pressure (AVP) and an interview were performed. The median clinical follow-up was 5.5 years (range 2–11 years).

**Results.** The estimated 5-year ulcer recurrence rate was 19% in all patients. The risk of ulcer recurrence was significantly lower ( $p < 0.05$ ) in legs without residual varices or recurrence. The five year risk of ulcer recurrence depended on the time interval between ulcer appearance and the surgical intervention (index operation), post-operative venous axial reflux and AVP (mmHg). More than 50% of the patients had a calculated probability of ulcer recurrence of less than 3%, but 13% had a probability of more than 23% based on our analysis.

**Conclusions.** A long history of venous ulcer is a pre- and post-operative risk factor for recurrent ulceration. Total elimination of incompetent superficial and perforator veins lowers the risk of ulcer recurrence, whereas residual axial reflux increases the risk. Postoperative CDU is effective in identifying patients at risk of ulcer recurrence.

**Keywords:** Colour duplex ultrasound; Superficial venous surgery; Venous ulcer recurrence; Risk factors.

## Long term results of compression therapy alone versus compression plus surgery in chronic venous ulceration (ESCHAR): randomised controlled trial

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**Results** Ulcer healing rates at three years were 89% for the compression group and 93% for the compression plus surgery group ( $P=0.73$ , log rank test). Rates of ulcer recurrence at four years were 56% for the compression group and 31% for the compression plus surgery group ( $P<0.01$ ). For patients with isolated superficial reflux, recurrence rates at four years were 51% for the compression group and 27% for the compress plus surgery group ( $P<0.01$ ). For patients who had superficial with segmental deep reflux, recurrence rates at three years were 52% for the compression group and 24% for the compression plus surgery group ( $P=0.04$ ). For patients with superficial and total deep reflux, recurrence rates at three years were 46% for the compression group and 32% for the compression plus surgery group ( $P=0.33$ ). Patients in the compression plus surgery group experienced a greater proportion of ulcer free time after three years compared with patients in the compression group (78% v 71%;  $P=0.007$ , Mann-Whitney U test).

**Conclusion** Surgical correction of superficial venous reflux in addition to compression bandaging does not improve ulcer healing but reduces the recurrence of ulcers at four years and results in a greater proportion of ulcer free time.



# **RISK OF ULCER RECURRENCE**

**Are endovenous ablation  
and surgery similar?**

**Which is the best  
endovenous method?**