Endovenous Laser Therapy for Varicose Veins: Primary Treatment of Branch Varicose Veins Might Not Be Necessary

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Abstract

Aims and Background: There is an uncertainty in regards to management of branch varicose veins after EVLT. The aim of this audit was to find out if patients treated with EVLT had good clinical outcome and whether they required further procedures for their varicose veins

Methods: We searched a prospective theatre database for EVLT under a single vascular surgeon. We reviewed patients' discharge and clinic letters.

Results: Over 1 year period, 92 legs were treated with EVLT with no primary treatment of branch varicose veins. Patients aged between 21 and 79 (median 49). 71 patients attended for follow up post EVLT. Out of 71 legs which attended for follow up, only 26 (38%) legs required further treatment. Out of 26 legs, 6 had treatment in first FU appointment (all injection sclerotherapy). Twenty patients had treatment in day case unit. The treatments given to those 20 patients were as follows (1 had avulsions, 1 USS guided Foam sclerotherapy and 18 had injection sclerotherapy). Out of these 20 patients, only one patient required another episode of injection sclerotherapy.

There was not a significant difference between the two groups (no further treatment vs. further treatment) in regards to age (P=0.45), length of time between OPA and treatment (p=0.67), length of time between treatment and first FU (p=0.29). The only significant difference was that more females (19/45) required further treatment than males (7/25) (42% vs 28%, p=0.046)

Eight legs (9%) had 9 complications: 4 complications happened as the result of EVLT (Haematoma, Sensitive skin *2, Angina attack ). 5 complications happened after injection sclerotherapy ( Ulceration*1, Bruising *2, Discomfort *1, Thrombophlebitis *1)

Conclusions: EVLT is an effective method to treat varicose veins. It had been introduced to safely with high success and low complication rates. Our algorithm of not performing primary treatment for superficial varicosities and reserving injection sclerotherapy for those who have residual varicosities seemed effective. It might not be necessary to treat branch varicose veins primarily and reserve treatment for unregressing veins.

Introduction

EVLT was introduced as the method of choice for treatment of varicose veins amenable to EVLT in the Royal Oldham Hospital in March 2008. There is an uncertainty in regards to management of branch varicose veins after EVLT. Some surgeons perform EVLT and reserve management of residual veins for those in whom troublesome varicosities persisted. Other surgeons perform combined EVLT and phlebectomy.

Aims:
To find out if patients treated with EVLT had good clinical outcome and whether they required further procedures for their varicose veins.

Methods

We searched a prospective theatre database for EVLT under a single vascular surgeon. We reviewed patients' discharge and clinic letters.

The following data was collected.

* Age
* Sex
* Type of surgery
* Length of time between OPA and surgery
* Length of time between surgery and first FU
* Number of FU appointments
* Further scans
* Further procedures (in outpatients or theatre)
* Complications.

Results

Between March 2008 and March 2009, 92 legs were treated with EVLT under one surgeon. These were 48 left legs (52%) and 44 right legs (48%). Sixty-two legs were females (67%) and 30 were males (33%). They aged between 21 and 79 (median 49).

Patients suitable for EVLT on Venous Duplex scan were treated with EVLT. Median time between OPA and treatment was 170 days (range 9-442 days).
of 92 legs, 71 attended for follow up post EVLT. Median time between treatment and first FU appointment was 111 days (range 48-237)

Treatment for branch varicosities:
Out of 71 legs that attended for follow up, only 26 (38%) legs required further treatment.
Out of 26 legs, six had treatment in first FU appointment (all injection sclerotherapy).
Among those who had treatment in first follow up appointment, four did not require any further treatment, one of them required one more episode of injection sclerotherapy and one required two more episodes of injection sclerotherapy.

Twenty patients had treatment in day case unit.
The treatments given to those 20 patients were as follows:
- 1 had avulsions
- 1 USS guided Foam sclerotherapy
- 18 had injection sclerotherapy.
Out of these 20 patients, only one patient required another episode of injection sclerotherapy.

To find out whether there are any factors, which led some patients to require treatment post EVLT, we compared the No Further Treatment Group with the Further Treatment Group. There was not a significant difference between the two groups in regards to age (P=0.45), length of time between OPA and treatment (p=0.67), length of time between treatment and first FU (p=0.29). The only significant difference was that more females (19/45) required further treatment than males (7/25) (42% vs. 28% p=0.046)

Complications:
Eight legs (9%) had nine complications:
Four complications happened as the result of EVLT:
- Haematoma
- Sensitive skin *2
- Angina attack (same patient who had thrombophlebitis with subsequent injection sclerotherapy)
Five complications happened after injection sclerotherapy.
- Ulceration *1
- Bruising *2
- Discomfort (attended surgical assessment unit) *1
- Thrombophlebitis *1

Conclusion

EVLT is an effective method to treat varicose veins. It had been introduced to TROH safely with high success and low complication rates.
Our algorithm of not performing primary treatment for superficial varicosities and reserving injection sclerotherapy for those who have residual varicosities seemed effective. It might not be necessary to treat branch varicose veins primarily and reserve treatment for unregressing veins.
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