

Pelvic vein treatments

By PHILIP COLERIDGE SMITH DM MA BCh FRCS

Consultant Vascular Surgeon, Medical Director of the British Vein Institute and Emeritus Reader in Surgery at UCL Medical School

TECHNOLOGY FOR TREATING

problems with the arteries and veins of the body has seen massive advances in the last 20 years. Minimally invasive methods have been developed for treating blocked arteries by endovascular methods, conducted through catheters threaded along the arteries from a needle puncture in a vessel some distance from the problem point. Arteries can be reopened with the help of 'stents' – metal supports to keep vessels open.

In the venous system, varicose veins are widely treated with endovenous techniques using a long catheter threaded along the length of the troublesome vein. No longer are incisions required to treat varicose veins which are completely reabsorbed following successful treatment.

Pelvic veins

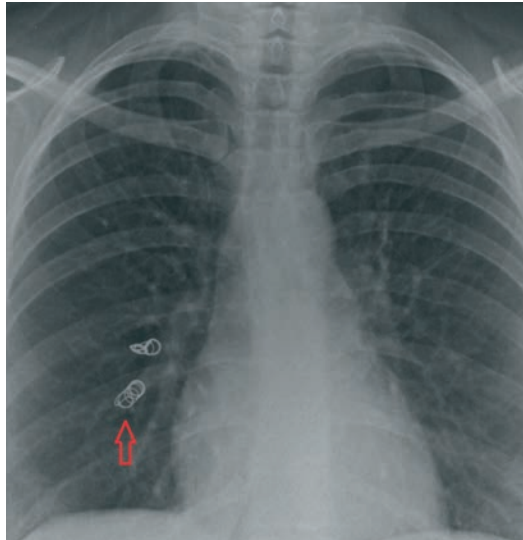
A problem which has now fallen into the field of expertise of vascular surgeons is the treatment of pelvic varicose veins. These veins lie deep in the pelvis and may give rise to pelvic pain. This subject usually lies in the field of practice of a gynaecologist since there are many causes of pelvic pain and it takes the expertise of a gynaecologist to investigate and identify the precise problem in each case. Pelvic varicose veins are a common finding in female patients who have delivered a child but mostly give rise to few symptoms.

However, in a limited number of patients, 'pelvic congestion syndrome' is associated with the pelvic varicose veins. These veins can be seen on ultrasound imaging of the pelvis. Symptoms of this condition include dull, aching or 'dragging' pain in the pelvis or lower back, particularly on standing and worse around the time of the menstrual period.

Many treatments have been tried for this condition. One of the earliest treatments was open surgical ligation of the ovarian veins which appear to 'feed'

the pelvic varicose veins. Since the development of modern endovascular treatment, 'embolisation' of the veins has been done.

In this treatment a needle is inserted into a vein in the neck of the patient and passed through the heart to reach the inferior vena cava in the abdomen and then the pelvic veins. The troublesome veins are blocked-off by depositing platinum coils inside the varices which leads to the veins becoming permanently occluded. Sclerosant



A complication of embolisation of pelvic veins. The embolisation coil has travelled to the lung

foam commonly used to inject varicose veins in the legs are also used.

The clinical data which supports the use of this treatment is somewhat limited. A number of clinical series have been published which report greatly improved symptoms following pelvic vein embolisation. However, no randomised clinical trial has confirmed the impression from the case series. Despite this, pelvic vein embolisation has become fairly widely used in the management of pelvic congestion syndrome and is considered acceptable practice amongst vascular surgeons.

Adverse events after minimally invasive treatment

The route taken by the catheters employed to embolise the pelvic veins is via the neck veins. This has the potential

for damage to veins or other vessels along the route of the catheter on its way to the pelvis, but such complications are rare. The coils used to block the pelvic veins should remain in the pelvis once delivered to their intended location, but that is not always the case.

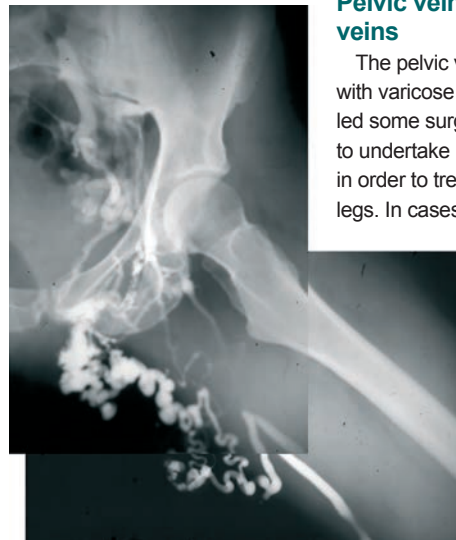
Some coils have been shown to migrate locally, potentially causing damage to nearby structures in the pelvis. Others have been known to travel via the veins to reach the right side of the heart and the lungs. Some coils may be retrieved by interventional radiologists although no long-term harm appears to arise from the misplaced coils. However, the migration of the pelvic coils causes considerable alarm and anxiety in some patients.

In the light of these significant adverse events, patients should receive detailed information concerning the possible risks of treatment as well as the likely benefits in accordance with the recently published advice from the General Medical Council on the subject of consent.

Pelvic veins and leg varicose veins

The pelvic varices may communicate with varicose veins in the leg. This has led some surgeons and radiologists to undertake pelvic vein embolisation in order to treat varicose veins in the legs. In cases where pelvic congestion

syndrome is present, this is probably acceptable management. However, it is often the case that pelvic varices lead to no symptoms but varicose veins are present in the legs. Some surgeons have concluded that treatment of pelvic veins is required for successful management of leg varices.



Varicose veins in the legs arising from varicose veins in the pelvis (left) and X-ray of pelvic varicose veins joining to leg varicose veins (right)

In general, the literature on the treatment of varicose veins shows that treatments conducted entirely within the legs is effective for such veins. Modern vein treatments lead to satisfactory resolution of varicose veins and considerable improvement in leg symptoms. The role of pelvic vein embolisation in the treatment of leg varicose veins remains unclear.

Several differing opinions appear in the medical literature but no clinical trial has been done to establish the role of pelvic vein embolisation in this context. My own informal survey of the views of European and American vein specialists indicates that most prefer to treat the leg varices by minimally invasive treatments (heating the veins and/or sclerotherapy with foamed sclerosants) as the first line of treatment. Where this fails some would consider pelvic vein embolisation.

Pelvic vein embolisation carries a number of potentially severe complications and its use in a non-life threatening condition, such as varicose veins in the legs, bears careful consideration with the patient during the consent process in order to comply with the General Medical Council guidelines on consent. In my view, failure to inform patients of the differing views of specialists in this field may comprise substandard care. Adverse events arising from pelvic embolisation in the treatment of varicose veins of the leg may be considered to be substandard care since less invasive methods with established efficacy are available.

Conclusions

Pelvic vein embolisation is a useful treatment in some patients in order to address pelvic congestion syndrome. Evidence for use of the treatment comes from limited clinical series and no randomised clinical trial is available to demonstrate efficacy of this treatment. Significant complications may arise from this treatment and patients should receive full information concerning these prior to undergoing treatment.

The use of pelvic vein embolisation in the management of varicose veins in the leg is not supported by any clinical series or trial. Most vascular specialists would prefer treatments with established efficacy for the management of varicose veins in the leg.

Mr Philip Coleridge Smith DM MA BCh FRCS
Consultant Vascular Surgeon
Medical Director, British Vein Institute



19 years

Defendant instructions

Claimant instructions

Single joint expert

Court experience

Areas of experience:

- Surgery of veins and arteries
- Sclerotherapy & laser ablation of varicose veins
- Varicose veins
- Deep vein thrombosis
- Pulmonary embolism
- Leg ulcer
- Lymphoedema
- Peripheral ischaemia
- Injury to blood vessels
- Medical negligence and personal injury

Office address:

British Vein Institute, 24-28 The Broadway, Amersham HP7 0HP

Tel: 0870 609 2389 Fax: 0872 111 7042

Email: p.coleridgesmith@bvi.uk.com

Web: www.medical-expert-witness.co.uk www.bvi.uk.com