Pelvic venous reflux – ‘The Elephant in the Room’

Pelvic venous reflux is a major contributory cause of recurrent varicose veins in more than a quarter of women

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Introduction

Recurrence after varicose vein surgery is a common and widespread problem. In order to try to reduce recurrence rates, it is necessary to understand why varicose veins recur after surgery. One avenue of investigation is to identify what is the common patterns of recurrence are following vein surgery.

There have been many studies published regarding the patterns of recurrence and most seem to identify common causes. These include neovascularisation, failure to strip the great saphenous vein, inadequate treatment of the anterior accessory saphenous vein and perforator veins. However, there are few previous studies that identifies pelvic venous reflux and reflux into leg varicose veins, usually via para-vulval veins, as a recognised cause of recurrent leg varicose veins.

This is surprising as it has previously been recognised that pelvic venous reflux with the extension into the varicose veins in the legs is one of the causes of leg varicose veins in approximately 18% of women.

This study is a retrospective review of a cohort of patients with recurrent varicose veins who had been referred to an independent vascular surgeon in the UK following unsuccessful treatment elsewhere. The aim of this study was to identify the major and contributing causes of reflux in these patients with recurrent varicose veins but to include any pelvic venous reflux which seems to have been overlooked in previous studies.

Patients and Methods

The study sample was selected by performing a search on our patient database of patients who had been referred in the last year with recurrent varicose veins and who had had their full investigations completed.

All patients referred with recurrent varicose veins had been examined clinically by a consultant at the clinic and had undergone a full venous duplex ultrasonographic examination of their legs by one of three specialist vascular technologists specialise in venous disease. All patients with recurrent varicose veins that were found to have venous reflux emerging from the pelvis into the recurrent varicose veins of the legs, were offered a transvaginal duplex scan to identify the source of any of the venous reflux.

All patient notes and duplex ultrasound findings were reviewed by the investigators and all sources of duplex identified venous reflux were documented. Each patient record was then analysed and, using the pattern of venous reflux and whether this correlated with the clinical findings of recurrent varicose veins or any skin damage, the different sources of reflux were classified as major or contributory cause of recurrence, or incidental finding.

Once all of the venous reflex in these patients with recurrent varicose veins had been classified, we then ignored the incidental venous reflux as not contributory to the clinical problem and not requiring any treatment.

Therefore we analysed the pattern of recurrent reflux in patients with clinical recurrent varicose veins or recurrent venous reflux disease, in terms of their major cause of recurrence and contributory cause of recurrence. In many patients, more than one cause of each of these was identified.

Patients were then split into four groups:

Group 1 all of the patients with recurrent varicose veins
Group 2 all female patients
Group 3 all female patients who had had children
Group 4 all female patients who had had children and who had not had subsequent hysterectomy

The major and contributory causes of recurrent venous reflux were then analysed for these four groups of patients.

Results

Results from 109 patients with recurrent varicose veins in 172 legs were analysed. Male to female ratio was 97:12. Clinical severity was uncomplicated varicose veins (C2) in 103 legs (59.9%), oedema (C3) in 30 (17.4%), skin damage (C4) in 32 (18.6%) with healed ulcer (C5) in 3 (1.7%) and open ulcer (C6) in 2 (1.2%). Two legs had profuse thread veins only on investigation (C1).

Pelvic venous reflux was found to be a major contributing cause of recurrent varicose veins in 44/172 legs (25.6%). In group 2, this rose to 43/154 legs (27.9%), 40/131 legs (30.5%) in group 3 and 37/111 legs (33.3%) in group 4 (see tables 1 – 4).

Conclusion

Pelvic venous reflux is a major contributing cause in women who have recurrent varicose veins after open surgery, that has rarely been reported previously.

References