Reduction in varicose vein services: impact on operative training

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ABSTRACT

INTRODUCTION This study examines the impact of rationing varicose vein operations on operative training on a general surgical unit with a vascular interest.

PATIENTS AND METHODS Log-books of middle-grade surgeons were analysed for 3-month periods before and after a decision by the local Primary Care Trust to ration varicose vein referrals. Number, intermediate equivalents and type of operations were recorded, whether they were general or vascular cases and whether the trainee had carried out or assisted with the operation.

RESULTS There was a slight fall in the total number of operations in which the middle-grade surgeons were involved (208 to 186). There was a significant increase in general surgical cases with the fall in number of varicose vein operations ($P < 0.0001$). The fall in case-load and work-load operative training in vascular surgery was compensated by an increase in general surgical cases ($P = 0.0003$). This was largely due to increased number of hernia repairs ($P = 0.0035$).

CONCLUSIONS From the point of operative training, a vascular unit in a district general hospital would not be sustainable following withdrawal of varicose vein services. However, this can be off-set by increasing general surgical case-load to fill the gap created.

KEYWORDS

Vascular unit – Operative training – District general hospital – Varicose vein

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The European Working Time Directive (EWTD) and Independent Sector Treatment Centres (ISTCs) each result in reduction in operative experience of middle-grade surgical trainees of about 20%.^{1–5} This reduction will be further compounded by withdrawal or rationing of services either completely or in part.⁴

The increasing trend towards specialisation will make ‘one-disease’ specialists vulnerable to the sudden withdrawal of all or part of that speciality. This might be as a result of other better forms of treatment becoming available or a disease simply becoming less prevalent. Rationing will have a similar impact.

Despite evidence to suggest that varicose vein operations significantly improve patients’ quality of life compared with conservative treatment,⁵ varicose vein services have been withdrawn in several parts of the UK. In July 2005, our local Primary Care Trust (PCT) decided that surgical treatment of varicose veins should only be funded in the presence of persistent ulceration or bleeding. Phlebitis, discomfort or swelling would be considered as indications providing that a trial of conservative treatment had failed.

On our unit, we had previously found that, following this decision by the PCT, the loss of varicose vein operations was compensated by an increase in the number of general surgical procedures.⁶ Thus, the workload was maintained. The aim of this study was to examine the impact of this decision by the PCT on middle-grade operative training.

Patients and Methods

The Royal Berkshire Hospital serves a population of approximately 500,000. There are 10 general surgeons, two of whom have an interest in vascular surgery. The ‘vascular’ unit comprises two consultants, two middle-grade surgeons, one basic surgical trainee and two pre-registration house officers. Routine cases were taken from the waiting list comprising mainly varicose veins, hernia and cholecystectomies.

Log-books of the middle-grade surgeons were examined for 3-month periods before and after the PCT decision to reduce varicose vein referrals and operations. Middle-grade surgeons in the 3-month period analysed before the change were SpR years 1 and 2, those in the second period

were SpR year 2 and a staff grade surgeon. The total number of operations with which they had been involved were recorded. They were subdivided into those performed alone (P), performed assisted (PA) and assisted (A). They were further divided into general or vascular. They were then categorised using the BUPA classification and converted to intermediate equivalents (IE).⁷

Comparisons were made using a Chi-square test, $P < 0.05$ being regarded as being statistically significant.

Results

Total operations

The total number of operations (P, PA and A) with which the registrars were involved fell from 208 to 186 (Table 1). There was a significant change in the profile of operations with reductions in the number of varicose vein procedures and a corresponding increase in the number of general surgical procedures ($P < 0.0001$; df 2; Chi-square 46.29).

Intermediate equivalents

Intermediate equivalents for P and PA combined, fell from 249.6 to 212.15. The fall in varicose vein work-load and, therefore, total vascular work-load, was at least partly compensated by the increase in number of general surgical intermediate equivalents ($P = 0.0003$; df 1; Chi-square 12.79). The proportion of hernia repairs was increased in the second study compared with the first. Hernia repairs comprised 31 of 249.6 IE in the first study compared with 48.25 of 212.15 in the second ($P = 0.0035$; df 1; Chi-square 8.517).

Case complexity

In the first study, 164 of 208 cases were major, intermediate or minor and 44 were major plus or complex major. In the second study 149 of 186 were major, intermediate or minor ($P = 0.757$; df 1; Chi-square 0.0957). Similarly, in the first study, 140 of 208 were intermediate or minor compared with 117 of 186 in the second study ($P = 0.359$; df 1; Chi-square 0.8399).

Discussion

Varicose vein procedures are an important component of operative surgical training. The technique of saphenofemoral ligation has been validated as a useful means of assessing technical competence.⁸ It could be argued that teaching of varicose vein procedures in the UK National Health Service is not necessary if varicose vein procedures are not, in the future, going to be carried out on the NHS. However, saphenofemoral ligation is a good exercise in anatomy, dissection, tissue handling and handling of blood vessels.

The decision of PCTs to restrict the indications for varicose vein referral and treatment inevitably will lead to a decrease in the number of procedures carried out.^{4,6} Furthermore, the veins referred are likely to be more complicated and the patient older with more co-morbidity.⁴ This may further reduce the operative training potential for these cases.

We have previously shown that, on a general surgical unit with a vascular interest, the vascular component has increased compared with the general surgical component over 16 years.⁶ With the PCT decision to limit varicose vein

Table 1 Middle-grade exposure to operative workload over two 3-month periods

	Audit 1								Audit 2							
	P		PA		A		Total		P		PA		A		Total	
	<i>n</i>	IE	<i>n</i>	IE	<i>n</i>	IE	<i>n</i>	IE	<i>n</i>	IE	<i>n</i>	IE	<i>n</i>	IE	<i>n</i>	IE
General	77	92.25	21	37.35	2	3.2	100	132.8	82	82.4	41	62	5	9.35	128	153.75
Varicose vein	41	41	19	19	4	4	64	64	1	1	7	7	0	0	8	8
Arterial	13	15.25	17	44.75	14	34.8	44	94.8	24	28.5	15	31.2	11	34.1	50	93.85
Total	131	148.5	57	101.1	20	42	208	291.6	107	111.9	63	100.25	16	43.45	186	255.6
Complex	0	0	6	24	5	20	11	44	0	0	3	12	6	24	9	36
Major plus	15	33	13	28.6	5	11	33	72.6	7	15.4	15	33	6	13.2	28	61.6
Major	8	14	14	24.5	2	3.5	24	42	12	21	17	29.75	3	5.25	32	56
Intermediate	95	95	24	24	7	7	126	126	63	63	23	23	1	1	87	87
Minor	13	6.5	0	0	1	0.5	14	7	25	12.5	5	2.5	0	0	30	15
Total	131	148.5	57	101.1	20	42	208	291.6	107	111.9	63	100.25	16	43.45	186	255.6

P, performed alone; PA, performed assisted; A, assisted; *n*, number; IE, intermediate equivalent.

referrals there was a reduction in varicose vein procedures of about 80%. This fall in numbers was compensated by an increase in general surgical cases such that the operative activity actually increased on the unit.

The majority of operations being undertaken by registrars will be classified as intermediate.⁹ Varicose veins procedures are equivalent in complexity to inguinal hernia repairs.¹⁰

Conclusions

The data show that we were able to continue to provide operative training to junior registrars due to the fall in varicose vein procedures at least being in part compensated by an increase in general surgery, particularly in hernia repair. A specialised vascular unit in a district general hospital would not be sustainable from a training point of view. If inguinal hernia repairs were either rationed or sent to an ISTC it would be debatable as to whether operative training for a junior trainee would continue to be feasible on a unit such as ours. Under those circumstances, it would be necessary to consider allocating trainees to an ISTC for continuing elective training.¹¹ However, whether quality of training would be maintained would be debatable.

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