The Editors welcome topical correspondence from readers relating to articles published in the Journal. Letters should be no more than 250 words in length and should be typed on A4-sized paper in double spacing

Causes of re-recurrence after polytetrafluoroethylene patch saphenoplasty for recurrent varicose veins (*Br J Surg* 2000; 87: 1356–60)

Sir

One of the aims of the study was 'to determine whether polytetrafluoroethylene (PTFE) patch saphenoplasty was effective in preventing recurrent veins at the level of the patch' but this was not realised. The authors state that 'deep venous disease was identified in 16 legs … All but two patients had no change in the deep veins following surgery'. It is not clear why patients were operated upon in spite of the presence of deep venous disease in the preoperative duplex imaging. The cause of the development of non-occlusive deep vein thrombosis after surgery in one of the patients is unexplained.

'Recurrence was more likely in patients with deep venous incompetence (six of 16) than in those with normal deep veins (10 of 54)'. This statement is statistically incorrect. 'Recurrent varicose veins caused by failure of the operation at the level of the patch were uncommon' seems to contradict with the later statement that 'failure at groin level is still the most significant cause of recurrent veins'.

The fact that 'none of the patients wanted further treatment at the time of review' does not mean that they were happy with the outcome.

The basis on which this procedure was judged to be safe in the present study is not clear. This is despite the fact that three patients developed wound infection and two developed signs of deep venous disease after the procedure.

T. S. Chandrasekar
S. P. Balasubramanian
Caithness General Hospital
Wick KW1 5NS
UK

Authors' reply

Sir

Firstly, before a randomized trial could be undertaken the safety of the patch needed to be established. Wound infections were no more frequent in the present report than in our previous study[1]. The issue of deep vein thrombosis (DVT) is important. Fourteen of the 16 patients with deep venous disease before surgery had localised deep venous incompetence (ten femoral, four popliteal). All were counselled about the risk of perioperative DVT and received thromboprophylaxis. None had clinical evidence of DVT. The two patients with late changes were asymptomatic; one had popliteal reflux and the other common femoral vein reflux. Although subclinical perioperative DVT cannot be excluded the follow-up scans were performed 30 and 38 months postoperatively and the changes could have occurred at any stage during that interval.

This paper does not provide definitive answers about the aetiology of re-recurrent long saphenous veins. Failure can occur at the level of the patch and at groin level where upper thigh tributaries or perforating veins dilate after saphenofemoral disconnection. In the present study the number of upper thigh perforating veins seen on varicography was surprising and note that the PTFE patch could have suppressed the development of neovascularization.

We did not use sophisticated measures of patient satisfaction or quality of life, but 88 per cent of patients remained satisfied with the results of their surgery. By keeping patients under review we actually increased the number of reoperations and previously 20 per cent of patients in the control arm requested reoperation[1]. No patient with a patch in five years of study in Gloucester has yet required groin re-exploration for recurrent veins.

We believe that the results reported in our paper justify the randomized trial of patch saphenoplasty now being undertaken.

B. P. Heather
J. J. Earnshaw
Gloucestershire Royal Hospital
Great Western Road
Gloucester GL1 3NN
UK

1 Dwerryhouse S, Davies B, Harradine K, Earnshaw JJ. Stripping the long saphenous vein reduces the rate of reoperation for recurrent varicose veins: five-year results of a randomized trial. *J Vasc Surg* 1999; **29:** 589–92.

Cost-effective carotid endarterectomy (*Br J Surg* 2000; 87: 323–7)

Sir

This study demonstrated reduced hospital stay, intensive care admission and perioperative investigations without increasing the incidence of complications. However, general anaesthesia and transcranial Doppler monitoring were used in all patients with no mention of the number of carotid shunts. Local anaesthesia and transcranial Doppler equipment is more expensive and less accurate than neurological monitoring of the awake patient[1,2]. Monitoring the awake patient decreases the need for shunting[3]. Use of a shunt is costly and it generally prolongs the operating time. General anaesthesia may cause more perioperative haemodynamic fluctuations requiring careful monitoring and treatment which may increase cost; this occurred in five patients[4]. In a third–world Caribbean setting, with limited facilities, restricted budgets and minimal monitoring equipment, we perform carotid endarterectomy safely under local anaesthesia and have had to shunt only one patient in 82 consecutive cases, we encountered one permanent neurologic complication and most patients were discharged within 24 hours[5]. Three patients were converted to general anaesthesia, two because of discomfort and one because of intravascular injection of local anaesthesia. Even where

excellent facilities exist, workers like Sandison *et al*. may further improve their cost-effectiveness by using local anaesthesia.

V. Naraynsingh
D. Maharaj
T. Kuruvilla
M. Ramdass
A. Esack
A. Naraynsingh
S. Teelucksingh
Department of Surgery
General Hospital
Port-of-Spain
Trinidad
West Indies

1 Godin MS, Bell III WH, Schwedler M, Kerstein MD. Cost-effectiveness of regional anaesthesia in carotid endarterectomy. *Am Surg* 1989; **55:** 656–9.
2 Stoneham MD, Knighton JD. Regional anaesthesia for carotid endarterectomy. *Br J Anaesth* 1999; **82:** 910–19.
3 Castresana EJ, Shaker IJ, Castresana MR. Incidence of shunting during carotid endarterectomy: regional *versus* general anaesthesia. *Reg Anesth* 1997; **22:** 235.
4 Corson JD, Chang BB, Shah DM, Leather RP, De Leo BM, Karmody AM. The influence of anesthetic choice on carotid endarterectomy outcome. *Arch Surg* 1987; **122:** 807–12.
5 Naraynsingh V, Kuruvilla T, Maharaj D, Rampaul R. Carotid endarterectomy under local anaesthesia: the technique of choice for developing countries. *West Indian Med J* 1998; **47**(suppl.)**:** 13.

Author's reply

Sir

I thank Naraynsingh *et al.* for their interest in our paper. We have also started to use local anaesthesia to perform carotid endarterectomy during the last 2 years and have contributed to the GALA trial, a multicentre UK study comparing general with local anaesthesia. However, in our experience the dissection phase takes longer with local anaesthesia than with general. Even using regional blocks supplemented with superficial infiltration, some areas require further infiltration, particularly those adjacent to the carotid artery. The authors state that the use of a shunt prolongs the operation, and, in our experience, the same is true of local compared with general anaesthesia. We agree that the use of local anaesthesia reduces the requirement for a shunt. In our experience 160 out of 244 patients (40 per cent) required a shunt under general anaesthetic compared with 2 out of 31 (7 per cent) for local.

We disagree with their dismissal of transcranial Doppler monitoring, which we find useful for two reasons. First, it can be used to detect a reduction in flow in the middle cerebral artery and, second, it can detect emboli. The first use can be important to indicate which patients require a shunt during general anaesthesia, but is not important if local anaesthesia is used apart from the rare occasions when conversion to general anaesthetic is required. In common with their experience, we have had to convert four patients from local to general anaesthesia, usually because of discomfort caused by retraction to gain access to the higher reaches of the internal carotid artery. We have also found that, in patients with a high degree of internal carotid stenosis, the opening of self-retaining retractors can completely occlude the flow in the middle cerebral artery, which can be restored by reducing the degree of retraction by a small amount. The second use, the detection of emboli, remains important despite the type of anaesthesia. Particulate emboli are most likely to cause neurological sequelae, and may be precipitated during the dissection of the carotid bifurcation. Detection of emboli during the prearteriotomy phase alerts the surgeon to take extra care to dissect the body off the arteries. Sometimes just pressing on the skin with a swab is sufficient to send a shower of emboli into the cerebral circulation from an unstable plaque. Such patients require great care to minimize manipulation of the carotid and therefore the embolic load. If such emboli cause a neurological deficit during local anaesthesia the effect may be observed immediately, but the damage has been done rather than avoided. We believe the combination of local anaesthesia with transcranial Doppler monitoring of the middle cerebral artery offers the best form of protection during carotid endarterectomy.

P. R. Taylor
Department of Surgery
Guy's and St Thomas' Hospital Trust
St Thomas' Hospital
Lambeth Palace Road
London SE1 7EH
UK

Mesh compared with non-mesh methods of open groin hernia repair: systematic review of randomized controlled trials (*Br J Surg* 2000; 87: 854–9) *and* Laparoscopic compared with open methods of groin hernia repair: systematic review of randomized controlled trials (*Br J Surg* 2000; 87: 860–7)

Sir

The EU Hernia Trialists Collaboration has answered a number of outstanding questions related to hernia surgery and should be congratulated. The first paper demonstrates that, in terms of hernia recurrence, the open mesh repair with a recurrence rate of 1·4 per cent is the 'gold standard' against which all other techniques should be compared. The second paper proves that time to return to normal activities, recovery time and analgesia usage are all reduced by the laparoscopic approach. Unfortunately, the paper also concludes that there is a small, but significant, excess of serious complications after laparoscopic repair.

This apparent failing warrants further examination with respect to the totally extraperitoneal (TEP) approach. The TEP repair is safe with no serious complications as reported in this paper. All serious complications occurred in patients undergoing a transabdominal preperitoneal (TAPP)

