

Sayers *et al.* also mentioned that permanent Horner's syndrome has not been reported after this procedure. This conclusion should be treated with caution. One of the 10 patients in my series has had a mild left Horner's syndrome which has persisted for 18 months. The technique used in this patient was exactly the same as Sayers describes, namely coagulating with diathermy the sympathetic chain where it lies over the neck of the 2nd to 5th ribs. It is a matter for conjecture whether the diathermy current can spread significantly upwards to the 1st rib.

**D. T. Reilly**  
*Watford, U.K.*

#### Author's Reply

We would like to thank Mr Reilly for his word of warning regarding transthoracic endoscopic sympathectomy. We would be interested to know whether he still performs bilateral procedures when three out of 10 cases in his series were associated with oxygen desaturation. Our experience of bilateral procedures is very limited and the decision to proceed to the second side is made in consultation with the anaesthetist. We fully accept that caution is highly desirable in such an invasive procedure for a relatively benign disease. Regarding Horner's syndrome, we have not seen any cases following transthoracic endoscopic sympathectomy but accept that excessive diathermy may lead to this complication, presumably due to cephalad conduction.

**R. D. Sayers**  
*Adelaide, South Australia*

#### Thoracoabdominal Aneurysms

Sir,

I read with interest the article "Transabdominal repair of type IV thoracoabdominal aortic aneurysm" by Gilling-Smith and Wolfe in the January 1995 issue of *The European Journal of Vascular and Endovascular Surgery*. I very much enjoyed reading the paper, but I have a word of caution regarding the approach the authors refer to in the last paragraph of the introduction. The transabdominal approach for thoracoabdominal repair that Dr Crawford described in his 1974 paper<sup>1</sup> was later abandoned because we felt that exposure was unsatisfactory. We found that this

approach compromised the proximal extent of aortic aneurysm exposure as well as dissection of the supraceliac abdominal aorta. Manipulation of the aorta at this level can be hazardous; intercostal arteries can be torn off causing massive bleeding and proximal aortic control is very difficult. I believe the trans-abdominal approach is suitable in cases of thoracoabdominal aortic aneurysm type IV with compromised pulmonary function when preservation of the diaphragm is important. I personally prefer to perform a thoracoabdominal incision without cutting the diaphragm.

**Hazim J. Safi**  
*Houston, Texas, U.S.A.*

#### Reference

- 1 CRAWFORD ES. Thoraco-abdominal and abdominal aortic aneurysms involving renal, superior mesenteric, and celiac arteries. *Ann Surg* 1974; 179: 763-772.

#### Authors' Reply

We are grateful to Hazim Safi for his comments and share his caution. It is, however, entirely possible to perform the retroperitoneal dissection (sweeping all the viscera to the right) and expose the left crus of the diaphragm and the supracoeliac aorta providing an Omnitract retractor is used. This dissection is identical to that for the full thoracoabdominal approach, as is the dissection of the left crus exposing the supracoeliac and lower thoracic aorta. For most type IV thoracoabdominal aortic aneurysms division of the costal margin is simply unnecessary. When the surgeon intends to perform an oblique anastomosis in order to incorporate the coeliac, superior mesenteric and right renal arteries and implant the left renal artery separately the subcostal approach is appropriate and reduces morbidity. For a high aneurysm, we would agree, the exposure is compromised.

**J. H. N. Wolfe and G. L. Gilling-Smith**  
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#### Limb Threatening Ischaemia

Sir,

We read with interest the paper "Surgery for limb threatening ischaemia: A reappraisal of the costs and benefits" by Johnson *et al.*

We note the use of separate questionnaires to derive scores for the individual Quality of Life (QOL) domains such as Barthel independent ADL index and the Frenchay activities index etc. Analysing QOL in this manner has several disadvantages;

- (1) The reliability and viability of these questionnaires to fulfil this function in this particular setting has not been studied.
- (2) These questionnaires do not address patient satisfaction with their quality of life i.e. some patients may be moderately or severely physically disabled but have adapted their lives so that they are quite content with their physical and social role in life. Questionnaires such as the Short Form 36 cover this area more thoroughly.
- (3) A single quality of life index score, perhaps the most valuable aspect of QOL assessment for use in economic appraisal, is very difficult to obtain using these measures.
- (4) Several QOL domains have been omitted e.g. sleep.

Thus we were slightly surprised the authors used this adhoc collection of assessment tools to analyse QOL when there are perfectly reliable and validated QOL specific questionnaire designed to do this. If we are to have meaningful economic evaluations incorporating QOL data applicable across the medical and surgical specialities then standardised methods of QOL measurement should be used to prevent isolated collections of incomparable data.

We noted that 35% of patients entered were unable to be followed up. Also, and perhaps most importantly, preoperative QOL (thus change in QOL) was not assessed and therefore the relative benefit or deficit incurred from each intervention was not addressed.

The cost of shower and concrete ramp installation (£14 000 and £15 000 respectively) seems a little excessive could the authors expand on this.

**I. C. Chetter**  
*Leeds, U.K.*

#### **Authors' Reply**

We would like to thank Mr Chetter for his comments on our paper and we would like to reply to the points that he has raised.

Mr Chetter's main objective is the use of separate domains such as the Barthel ADL index and the Frenchay activity index rather than a unified profile

such as the Short Form 36 (SF 36). It is axiomatic that the validity of health measures can never be proven since there is no "gold standard". However, it is important that profile measures which generate separate scores across a range of dimensions are not confused with index measures which result in a single number. Opponents of profile scores argue for the distinctive nature of the different concepts of health (e.g. physical mobility and mood) and for keeping them separate. The opposing index school led by economists who address resource allocation issues would argue there is the important question of how to weigh up changes in the different dimensions. The aim of this paper was to study the individual domains of quality of life in detail rather than an overall economic appraisal. Although the SF36 covers many domains, it was not considered detailed enough in the particular aspects that are important to amputees.

Although many of the domains used have not been specifically validated on patients undergoing reconstructive surgery and amputation, they have been used extensively in stroke patients who have very similar rehabilitation problems. Validation of Quality of Life Measure is difficult because of the lack of a "gold standard" and to our knowledge the SF36 has not been specifically validated for this area either.

Mr Chetter states that several QOL domains were omitted, e.g. sleep but if he had cared to undertake a little reading he would have found that the anxiety and depression scores include this aspect. The criticism that 35% of patients were not followed-up is unfair as half of these patients had died before their 6 month community assessment. Even Mr Chetter must be aware that it is difficult to obtain a QOL score from a deceased patient. Preoperative QOL was not assessed because the study was retrospective as clearly stated in the abstract. A larger prospective study is now nearing completion. In this study, patients were assessed before and after treatment to assess the change in their QOL. The cost of adaptations to the patient's home do appear to be very expensive. However, these costs were accurate as they were obtained from the Department of Social Services.

In conclusion, we agree that standardised methods of QOL measurement need to be useful for meaningful economic evaluation between different medical and surgical treatments. However, the main aim of this study was to study aspects of QOL in detail after surgical reconstruction or amputation for critical limb ischaemia with a view to identifying predictors of success or failure which could help with individual patient management in the future.