SHORT REPORT


D. K. Beattie¹, A. Rodway¹, T. Ainley² and A. H. Davies*¹

Departments of ¹Vascular Surgery and ²Anaesthetics, Imperial College School of Medicine, Charing Cross Hospital, Fulham Palace Road, London, W6 8RF, U.K.

Key Words: Ruptured abdominal aortic aneurysm; Intensive therapy unit.

Introduction

Mortality from ruptured abdominal aortic aneurysm (RAAA) correlates with time to aortic clamping.¹ Intervention is often delayed by the need to transfer the patient to a tertiary centre due to the non-availability of a vascular surgeon or, increasingly, the lack of an intensive therapy unit (ITU) bed at the receiving centre. We have used a postal survey to investigate current practice in the management of RAAA in the U.K. in these circumstances.

Methods

Questionnaires were sent to 169 teaching, tertiary referral and district general hospitals. The information requested is shown in Table 1.

Results

The response rate was 76.3% (129 responses, three invalid). The detailed findings are shown in the table. The principal findings were as follows:

- 40 (32%) responses were from teaching/tertiary referral centres;
- 42% of district general hospitals have 24-hour vascular cover compared to 92% of teaching/tertiary centres;
- 4.8% of respondents transfer patients pre-operatively when no ITU bed is available;
- 25% of teaching/tertiary referral centres decline referrals if no ITU bed is available;
- Only 10.3% of institutions have a policy addressing ITU bed non-availability.

Discussion

Evidence supporting the centralisation of vascular services is contradictory.

The Finnvasc registry demonstrates a correlation between unit activity and mortality from RAAA.² Another study³ showed similar mortality rates for vascular and non-vascular surgeons but the former turned down significantly fewer patients (11% vs 64%), and hence had lower overall mortality. Conversely data from Edinburgh⁴ suggests that service centralisation results in an inappropriately low operation rate for those not transferred.

Fifty-three centres in this survey do not have 24-h access to a vascular surgeon. In 30 of these RAAAs are operated on by surgeons with no vascular interest; in the other 23 treatment is delayed by transfer to a tertiary centre.

The question of ITU bed availability generated much comment. Many units report increasingly having to treat RAAAs without an available ITU bed. The EPIC study⁵ revealed a north/south European divide with respect to ITU beds, southern European countries having fewer beds and iller patients. The U.K.

---

* Please address all correspondence to: A. H. Davies. Department of Vascular Surgery, Imperial College School of Medicine, Charing Cross Hospital, Fulham Palace Road, London, W6 8RF, U.K.
however seemed more similar to a southern European country than a northern one.

In most units ITU bed non-availability does not delay surgery; just 4.8% transfer pre-operatively, the majority transferring post-operatively, ventilating within the theatre suite until a bed is available, or transferring out the fittest ITU patient. This is fortuitous as a quarter of tertiary units decline referrals if they have no ITU bed. There appears to be no data available as to the risks of transferring a patient immediately after RAAA repair. Just two units reported no problems with ITU bed availability.

There was no statistical difference in the treatment of patients in the two types of hospital when no ITU bed is available.

The shortage of ITU beds for treating RAAA in the U.K. appears severe. Few institutions have a protocol to deal with ITU bed non-availability, this being statistically more likely in teaching/tertiary referral centres, and it is understandable that many respondents reported conflict between anaesthetists, surgeons and managers.

References


Accepted 19 August 2002