

*To the Editor*—I share Kung et al's interests in acute aortic dissection/syndrome (AD) and would like to compliment them on their contribution<sup>1</sup> to the understanding of this potentially lethal entity. I hope they can clarify some aspects of their study:

1. Of the 28 patients under review, how many were accident and emergency (A&E) attendees and how many were admitted patients?
2. Were the A&E attendees directly referred to a tertiary referral unit or sent home? If they were sent home, what was the rationale for discharging home an attendee with a diagnostic code of AD?
3. The diagnosis of AD was correctly made in the A&E in 15 patients and not made in 13 patients. As there were no obvious differences in presentation/symptoms between the two cohorts, could the authors disclose how the diagnosis was made on the 15 patients, and comment on why the diagnosis could not be made on the other 13? Please also advise how to increase the diagnostic yield in the A&E.
4. Can the authors explain why the pathological type of dissection could not be identified at three autopsy examinations?

I would also like to share with our A&E colleagues and readers my thoughts on the management of AD. The cardiothoracic surgical unit at Grantham Hospital (GH) accepts and operates on

acute type A/AD with or without complications and type B/AD with complications only (eg impending rupture or compromised blood flow to a vital organ or extremity). The departmental statistics show that from 1981 to 2004, 311 patients underwent emergency aortic surgery for acute type A dissection. The GH was the sole local hospital offering emergency aortic surgery for acute AD in the 1980s until 2003. Between 2000 and 2003, GH operated on 30 cases per year. Prior to 1989, our overall operative mortality rate was 32%. Mortality rates have decreased as our experience has accumulated. In 2004 and 2005, the mortality rates were 6.7% and 7.6% respectively and this year, up to the end of March, we operated on six patients with acute AD who all survived. We are now achieving the standard seen in developed countries.<sup>2,3</sup>

Finally, I fully support Kung et al's proposal to set up an AD Registry in HKSAR and believe that hospitals in mainland China should be encouraged to participate.

**LC Cheng**, FRCS (Edin), FHKAM (Surgery)  
E-mail: lccheng@graduate.hku.hk  
Division of Cardiothoracic Surgery  
Department of Surgery  
University of Hong Kong  
Grantham Hospital  
Hong Kong

## References

1. Kung SW, Ng WS, Ng MH. Aortic dissection in an accident and emergency department in Hong Kong. *Hong Kong Med J* 2007;13:122-30.
2. Westaby S, Saito S, Katsumata T. Acute type A dissection: conservative methods provide consistently low mortality. *Ann Thorac Surg* 2002;73:707-13.
3. Hu XP, Chang Q, Zhu JM, Yu CT, Liu ZG, Sun LZ. One-stage total or subtotal aortic replacement. *Ann Thorac Surg* 2006;82:542-6.

## Authors' reply

*To the Editor*—Thank you for Dr Cheng's letter.

1. The 28 new aortic dissection (AD) patients in the study were admitted through the Accident and Emergency Department (AED) of Tseung Kwan O Hospital. Another four AD patients were not

included. One patient was admitted directly from a convalescent hospital for poor general condition. The other three were admitted after out-patient contrast computed tomographic (CT) scans of the thorax or echocardiogram.

2. In general, when AD was diagnosed, tertiary care units would be consulted.
3. Factors contributing to the diagnosis of AD included doctor experience, disease presentation, patient co-morbidity, and departmental arrangement. With access to contrast CT thorax and a mechanism for direct Cardiothoracic Surgery Unit (CTU) transfer, valuable experiences were gained. The overall yield rate of CT thorax was 43% (33.3% in 2002, 50.0% in 2003, 37.5% in 2004, 47.4% in 2005). Aortic dissection with vague presentations might be missed. Practically, the diagnostic yield in an AED may be improved by hospital AD review, doctor training, AED access to CT thorax, 24-hour radiology reporting, and better interdepartmental communications.
4. Seven postmortem examinations were done. Four were done in diagnosed or suspected AD patients. Three were done for clinically

unsuspected AD. The summary pathology reports described the morphological findings, rather than the AD type. The exact type of AD could not be deduced from the summary report in three patients.

We fully support the setting up of an AD registry. Accident and Emergency Department, CTU, and Intensive Care Unit could coordinate the registry and enable early diagnosis, prompt stabilisation, and excellent surgical care of AD patients.

**SW Kung**, FHKCEM, FHKAM (Emergency Medicine)

Email: kungsw@netvigator.com

**WS Ng**, FHKCEM, FHKAM (Emergency Medicine)

**MH Ng**, FACEM, FHKAM (Emergency Medicine)

Accident and Emergency Department

Tseung Kwan O Hospital

Tseung Kwan O

Hong Kong