superiorly. He was transferred to theatre immediately and subsequently made a good recovery following aortic root replacement and coronary artery bypass grafting.

DISCUSSION

Acute aortic syndrome (AAS) is a clinical entity encompassing aortic dissection, aortic intramural haematoma and penetrating aortic atherosclerotic ulcer. The annual incidence of the syndrome is variously reported as 0.5 to 4 per 100 000 individuals per year and accounts for 0.9% of all sudden cardiac deaths.

The majority of dissections occur in the context of atherosclerosis and hypertension.[1] As a consequence, the demographic and clinical features of patients presenting with AAS greatly overlap with patients presenting with ACS. This similarity between the condition cohorts and indeed dual pathology leads to frequent misdiagnosis and erroneous initial treatment of patients presenting with the pain of AAS.[2]

The difficulty in diagnosing AAS is further complicated by its heterogeneity of presentation. The dissection flap can propagate antegradely or retrogradely causing coronary artery occlusion, aortic insufficiency, malperfusion syndromes and cardiac tamponade. Classically, patients present with severe tearing pain of sudden onset, which is to be distinguished from the gradually evolving heavy pain of ACS. However, complaints of neurological deficits, as in this case, may be present in as many as 40% of type A dissections.[3] Following a period of pain, cardiac failure may become the predominant symptom and is usually related to severe aortic regurgitation. Cardiac tamponade later results in hypotension and syncope.

ECG changes are not a common presenting feature of AAS and occur in only 13–15% of cases.[1 2] Occlusion of the right coronary artery (RCA) in this case resulted in global ischaemic ECG change rather than the more common pattern of inferior ST segment elevation associated with ostial RCA occlusion.

Once the diagnosis of AAS is suspected, prompt diagnostic imaging is required and CT and transoesophageal echocardiography are the imaging modalities of choice. A widened mediastinum on chest *x* ray is neither sensitive nor specific for aortic dissection. Transthoracic echo, if rapidly available, is most useful when type A dissection is suspected but should not delay a diagnostic imaging study if the index of suspicion is high.

United Bristol Healthcare Trust, Bristol, UK

Correspondence to: S H Dorman, United Bristol Healthcare Trust, Cardiology Department, Marlborough Street, Bristol BS1 3NU, UK; stephendorman@yahoo.co.uk

Accepted: 12 March 2008

Competing interests: None declared.

Patient consent: Informed consent was obtained for publication of the details in this report.

Emerg Med J 2008;**25**:462–463.
doi:10.1136/emj.2008.059709

REFERENCES

1. **The International Registry of Acute Aortic Dissection (IRAD)**. New insights into an old disease. *JAMA* 2000;**283**:897–903.
2. **Hansen M,** Nogaredo G, Hutchison S, Frequency and inappropriate diagnosis of aortic dissection. *Am J Cardiol* 2007;**99**:852–6.
3. **Diagnosis and management of aortic dissection**. Recommendations of the task force on Aortic Dissection, European Society of Cardiology. *Eur Heart J* 2001;**22**:1642–81.

Correction

E Sellers, C L Jones. Book review: Emergencies in clinical medicine. *Emerg Med J* 2008;**25**:387. The correct order of authors is C L Jones, E Sellers.