tional or alternative thrombolytic therapy being given and so to early coronary artery reperfusion.

Sigwart *et al* recommended that streptokinase antibodies should be assayed routinely in patients being given thrombolytic therapy after myocardial infarction.[7] The commonly used radioimmunoassay, however, is time consuming and inconvenient and therefore not suitable as a guide to clinical strategies in critically ill patients. Some clinicians routinely measure serum fibrinogen immediately after administration of streptokinase to identify patients in whom delayed or failed reperfusion is likely because streptokinase antibodies are presented.[8] This method is still useful, but there is a quick and easy assay for streptokinase antibodies that can be used for screening and to guide clinical treatment.

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Traumatic rupture of the thoracic aorta diagnosed by transoesophageal echocardiography

SIR,—The case reported by de Belder *et al* confirms the diagnostic value of transoesophageal echocardiography (TOE) in traumatic aortic rupture.[1] They say that the echocardiographic appearances were "previously undescribed". However, I and others first reported the role of TOE in traumatic aortic rupture in 1991,[2] with echocardiographic images similar to their case. Others subsequently confirmed our findings.[3,4] I hope that the interesting report of de Belder *et al* will further promote this rapid, accurate bedside technique to diagnose a frequently fatal condition.

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Maldevelopment of conotruncal and aorto-pulmonary septum with absent left central pulmonary artery: anatomical and clinical implications.

SIR,—We were most interested in the excellent report by Schulze-Neick *et al* in which they described a case of atresia of the pulmonary valve associated with absence of the central component of the left pulmonary artery.[1] We would like to suggest an alternative interpretation of the underlying morphological malformation.

We are confused by their assertion that there was no arterial ligament or duct. As the left pulmonary artery had no central connection with the pulmonary trunk, from where did it receive its blood flow before the establishment of the modified Blalock-Taussig shunt? If, as we suspect, there was a connection with the concavity of the aortic arch, surely this vessel should be regarded as representing the arterial duct?

Failure of incorporation of the orifice of the right sixth aortic arch into the confluence of the pulmonary arteries, caused by deviation of this orifice or of the aorto-pulmonary septum, results in a single (right) anomalous pulmonary artery arising from the ascending aorta (a condition sometimes erroneously called a "hemitruncus"), in which case the anomalous pulmonary artery remains entirely separated from the pulmonary trunk and the left pulmonary artery. It is difficult to see how the right sixth arch could have two proximal ends with one opening into the aorta and the other joining the pulmonary trunk. The distal end of this arch cannot be involved because had it persisted, it would be connected with the right subclavian artery, and because the non-arcuate portion of the right pulmonary artery terminates in the right lung. We consider that this anomaly was more likely to

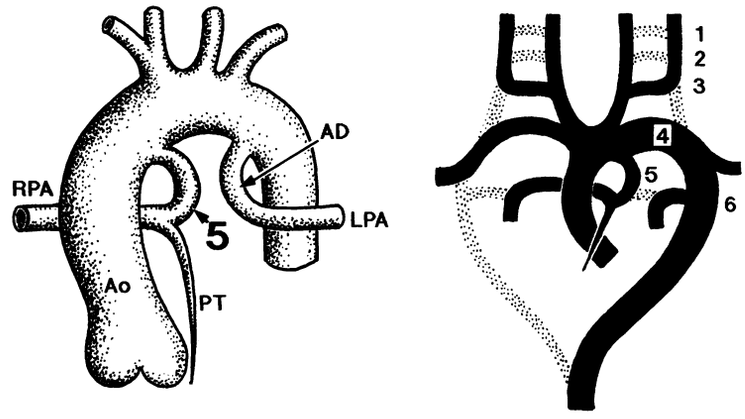

Figure 1 Diagrams of our interpretation of the state of the great arteries in the case described by Schulze Neick, et al[1] and in our case (fig 2), and of the underlying embryological arrangement. Ao, aorta; AD, arterial duct; LPA, left pulmonary artery; PT, central pulmonary trunk; RPA, right pulmonary artery; 1–6, embryological aortic arches.

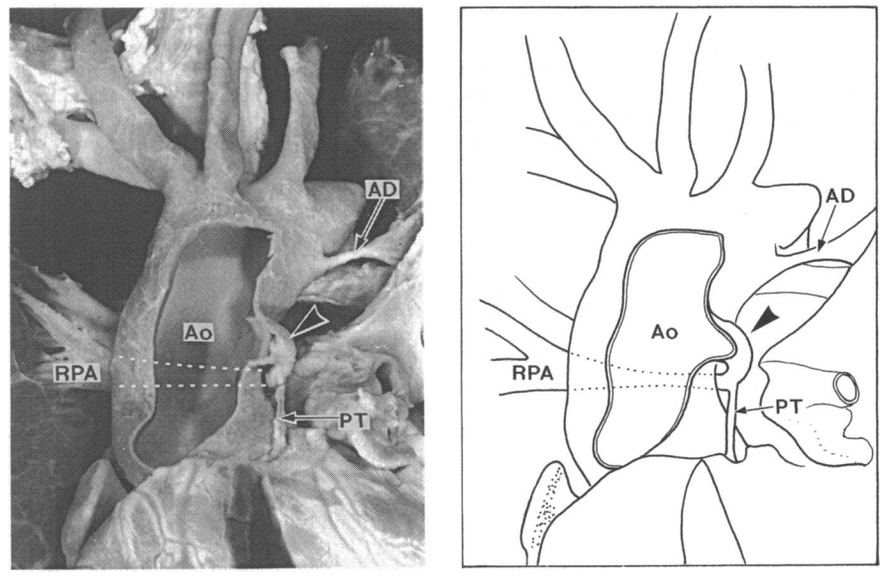

Figure 2 Photograph and key diagram of the specimen in the Brompton collection. The anomalous origin of the right pulmonary artery is indicated by the large arrow head. Ao, aorta; AD, arterial duct; LPA, left pulmonary artery; PT, central pulmonary trunk; RPA, right pulmonary artery; 1–6, embryological aortic arches.

be caused by the persistence of a left fifth aortic arch, of the systemic-to-pulmonary type,[2] associated with atresia of the pulmonary trunk and non-development of the proximal portion of the left sixth arch as shown in the diagram (fig 1). We have in our collection a specimen of what appears to be an identical condition. This was sent to us by Dr Michael Kearney of Tromso, Norway. It has been described elsewhere[3] as a persistent fifth arch (fig 2). Persistence of the fifth arch is not as rare as is generally thought and can often mimic other arterial anomalies.[4] Awareness of this possibility can sometimes provide a fairly simple explanation for unusual conditions.

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BRITISH CARDIAC SOCIETY NEWSLETTER

1994 Annual Meeting

Torquay and the Riviera Centre hosted our annual meeting this year from 17 to 19 May. Among the nearly 2000 registering were 364 members, 500 non-members, and 339 nurses. Unlike four years ago, when we were last in Torquay, the weather was not on our side, but many have commented favourably on the scientific sessions and exhibition. The affiliated groups made significant contributions to the programme, and it was a pleasure to have the British Society for Cardiovascular Research participating for the first time with well attended sessions. Overall 350 abstracts were presented, together with the two plenary sessions, six affiliated groups' meetings, the Thomas Lewis Lecture given by Peter Sleight, and the St Cyres Lecture given by Gunter Breithardt. Well attended programmes were held by the technicians and the nurses.

Two sessions that attracted widespread praise were the "judges' choice" sessions in which abstracts attracting the highest marks during the review process were put together irrespective of their category. There is still a demand for general sessions and the Programme Committee, chaired by Andrew Henderson, will be reviewing the structure of the annual meeting in the next few months. Moderated posters were judged to be successful despite some technical difficulties.

The Young Research Workers Prize was judged this year by Stuart Cobbe (chair), David Hearse, George Just, and Andrew Newby. The session was well attended and the judges' decision difficult. Our congratulations go to the winner Dr Barbara Casadei for her contribution "Effect of vagal stimulation by transdermal scopolamine on exercise performance and R-R interval variability in patients with chronic heart failure" and to the three runners up Dr R S More, Dr S A Thorne, and Dr D M Walker.

Council discussed the structure of the meeting and is considering reducing the number of simultaneous oral sessions and increasing the number of posters—with an increasing proportion of posters being moderated. It may be necessary to increase the rejection rate for submitted abstracts. Please write to John Cleland at 9 Fitzroy Square with any comments you have by 1 October 1994.

Next year's meeting is in Harrogate from 23 to 25 May and will include the first Paul Wood Lecture created by Council with members' support.

Training and Manpower Committee

Michael Webb-Peploe writes that "the proposed programme for post-Calman higher training in cardiology has now been discussed by:

- The Specialist Advisory Committee (SAC) in Cardiovascular Medicine to the Joint Colleges' Higher Medical Training (JCHMT)
- The Training and Manpower Committee of the British Cardiac Society
- The Council of the British Cardiac Society

It will now be submitted to the JCHMT for comment and (we hope) ratification at their next plenary meeting in November.

After a minimum of 2 years general professional training (at SHO level starting after full registration), candidates will be expected to have passed the MRCP examination. Non-UK candidates from other EU countries will have to provide evidence of equivalent knowledge and experience if they wish to train in the United Kingdom. Posts for specialist training in cardiology will be obtained through competitive interview by committees similar to the present registrar/senior registrar appointment committees. Specialist training will last for 6 years:

Phase 1: Basic cardiology and acute general medicine
Two years' training in clinical cardiology, coronary care, basic non-invasive investigations (ECG, echocardiography, exercise testing, ambulatory monitoring, nuclear cardiology), and basic invasive investigations (cardiac catheterisation, temporary and permanent pacing) with at least 60 nights of resident unselected take with continuing responsibility for patients admitted.

Phase 2: Basic cardiology in a specialist centre
Three years' further training in clinical cardiology (including care of post-surgical patients) and in non-invasive and invasive investigations, with an introduction to interventional cardiology and electrophysiology.

Phases 1 and 2 make up 5 years. Included in these 5 years will be protected time for research equivalent to 1 year.

Phase 3: Either advanced training for 1 year in one of
Interventional cardiology, non-invasive investigations, electrophysiology and advanced pacing, adult congenital heart disease, or a year of research for academic trainees
or
Further training for a year in general internal medicine for those wishing to acquire dual certification in both cardiology and general internal medicine.

There will be a formal annual assessment of both trainee and training programme involving the trainee, his/her trainer, the postgraduate dean (or representative), and the trainee's "mentor" (a cardiologist from a neighbouring unit). The results of this assessment will be recorded in a training log book (a confidential document and the property of the trainee) and will have the aim of improving the performance of the trainee, and remedying any deficiencies in the training programme.

The need to match the supply of suitably trained cardiologists to the needs of district general hospitals and tertiary centres requiring subspecialty cardiological skills (for example—intervention and electrophysiology) will require a tight control of the number of trainees receiving sixth year advanced training in cardiological sub-specialties (for which there is a limited demand) if we are to avoid training people for non-existent jobs. The best method of achieving this has still to be determined.

On the initiative of the President, John Parker, an open session was organised during the recent British Cardiac Society Meeting in Torquay to discuss training and manpower issues with all interested parties. This was a success and it is intended to hold similar sessions at future British Cardiac Society meetings."

British Cardiovascular Intervention Society

Huon Gray writes: "After a successful winter scientific meeting in Manchester the first copy of a BCIS Newsletter appeared and was distributed to members. This covered the content of the meeting and provided additional information to members about future meetings. The second newsletter has just been distributed and covers the very successful Angioplasty '94 meeting which was held in London. This was a two day meeting, attracting several delegates and speakers from Europe and the United States, and was attended by more than 300 people. A computer based inter-active audience participation system was in operation during the two day meeting and allowed immediate feed-back from the audience in response to questions from the speakers and panellists. This proved very successful and feedback from the audience showed great support for a similar meeting next year. More recently BCIS held a short session at the British Cardiac Society Annual Meeting in Torquay on the subject of intracoronary stenting. The next BCIS meeting will be held in Cardiff on Friday, 30 September.

Membership of BCIS continues to rise and is now over 300. Most members are medically qualified but a substantial minor-