Traumatic pericardial tamponade

EDITOR.—We agree with Crawford et al.1 that it is difficult to make an early diagnosis of cardiac tamponade and even more difficult to diagnose penetrating cardiac injury in the haemodynamically stable patient without tamponade. Once tamponade has developed immediate intervention is critical. The role of rapid ultrasound and cross sectional echocardiography needs further clarification in these situations.

In several American trauma centres ultrasound examinations looking for haemopericardium and the more informative cross sectional echocardiography have been found to be very useful for the early diagnosis of penetrating cardiac injuries in haemodynamically stable patients, provided that they are performed diately available in the resuscitation room and performed and interpreted by trained technicians, cardiologists, trauma surgeons, or emergency physicians. In a study by Rozycki et al2 of 247 patients who had ultrasound carried out by trauma surgeons, the sensitivity, specificity, and accuracy was 100%.3 Similarly, in a report by Ma et al4 of 245 patients who had ultrasound carried out by emergency physicians, the sensitivity, specificity, and accuracy was 100%, 99%, and 99% respectively.5 Freshman and his colleagues6 did not show false negatives in a cross sectional echocardiographic examination of 32 patients in whom no pericardial effusion was found, contrary to the statement by Crawford et al.1 However, a recent prospective study of 105 patients by Meyer et al7 showed that false negatives were a problem only in patients with a haemothorax, as cross sectional echocardiography missed four significant injuries. Otherwise the sensitivity, specificity, and accuracy of this investigation in those without haemothorax is at least as high as that of subxiphoid pericardiocentesis (100%, 89%, and 90% respectively).

The paper highlights the difficulties we face in the management of patients with traumatic haemopericardium in hospitals without cardiothoracic services on site. The matter is further complicated where there is no reliable 24 hour ultrasound service. In Glasgow, two haemodynamically stable patients decompensated rapidly, one requiring an emergency thoracotomy in the ward and the other in the resuscitation room. Both survived, but the outcome may have been different in other units. We suggest that another lesson to be learned from their experiences is to consider the option of rapid ultrasound or cross sectional echocardiography as early as possible when cardiac injury is suspected.

34% elbow effusion, and 46% comminuted calcaneal fracture. These significant injuries are difficult to diagnose and many of us in A&E suspect that they are therefore likely to be missed by junior doctors working on their own. The idea of the paper was to document this more accurately and I think it does. At the same time we hoped it would act as further argument for providing juniors with greater support and training (as well as improved risk management) rather than being pejorative, feel that analysing our errors and devising ways to overcome this is more important than fears of doctors saying "those hostile to our specialty." Mr Leaman mentions "missed fracture" audits, and I agree it is important to review these for feedback. However, statistically this is not very meaningful as any percentage error is bound to be small since most of the x rays are normal anyway, and the doctor's x ray threshold is an important variable. It is more accurate to look at the percentage of abnormal x rays that are missed. In our study, more than 90% were seen by the junior staff but only 12% of significant abnormalities were uncommon and SHOs on their own may only see one or two examples of each in their six months.

I certainly agree with Mr Leaman that our SHOs do a fine job but this paper emphasises that they need support and other systems to reduce the error rate.

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Curriculum based teaching

EDITOR.—We were interested by the article by Davies et al8 on their experience of curriculum based teaching. We teach in a curriculum based programme. It is organised by a committee of four (two consultants and two trainees) and all of its members have accredited teaching skills, for example advanced life support instructor, City and Guilds teacher's certificate 7307. Consultants also contribute to the programme on the grounds that if you wish to benefit from the meetings you should be prepared to contribute to them. Two tutorials are covered in each afternoon meeting, with time built in for discussion. Although we do not attempt to rank our meetings we ask participants to evaluate them at the end of each tutorial.

The speakers are either consultants who present a topic related to their area of expertise and interest, or trainees who are required to extend their knowledge base by addressing an allocated topic from the FFAEM curriculum, but avoiding areas where they are likely to have a large knowledge base. The trainees are given six months' notice, allowing comprehensive research on their topic.

As regards content, all presentations have to be referenced from the most up to date sources and to be of the standard of Rosen et al9 and the Oxford Textbook of Medicine. It is also a requirement that the presentation should make clear any audit or resource implications.

Throughout the course there is standardisation of format: all presentations to be on Microsoft PowerPoint and be accompanied by a document on Microsoft Word or WordPerfect. Powerpoint slides should be in a font type, point size, and the use of colours.

At the end of the each meeting, which is informal and allows for constructive debate, the speaker receives a summary of peer group evaluation (trainees only). The Word and Powerpoint files are copied from the presenter's