

artery. During percutaneous coronary intervention, when there was balloon inflation, he had identical head pain with ECG changes but with no chest discomfort. After coronary intervention he was free of the pain on exertion.

About half of patients with a subarachnoid haemorrhage have ECG abnormalities.² Failure to recognise that ECG abnormalities are common in patients with subarachnoid haemorrhage can lead to them receiving inappropriate cardiac treatment and delayed investigation for subarachnoid haemorrhage. In the case I describe, the localisation of the pain resulted in initial misdiagnosis of cardiac pain as subarachnoid haemorrhage.

PETER WILMSHURST
Consultant cardiologist
Royal Shrewsbury Hospital

References

- 1 Lanza GA, Scihbasi A, Sestito A, Maseri A. Angina pectoris: a headache. *Lancet* 2000;356:998.
- 2 Harries AD. Subarachnoid haemorrhage and the electrocardiogram – a review. *Postgrad Med J* 1981;57:294–6.

Emergency medical readmission: long-term trends and impact on mortality

Editor – We read with interest the study by Glynn *et al* (*Clin Med* April 2011 pp 114–8) describing long-term trends in emergency medical readmissions and the impact on mortality. There is much interest in emergency readmissions at present and a view that many readmissions are preventable.

In 2002–03, we undertook an audit of 28-day emergency readmissions from 14 general medical (including care of the elderly) wards in our 800-bedded acute trust serving a predominantly deprived population. As part of that audit, we solicited patients' views on their emergency readmission. There were 642 emergency readmissions in 4,801 medical discharges (13%) over a seven-month period, of 606 for whom notes were available, 202 (33%) had died by the time we undertook the survey and 15 had moved district. We

wrote to the remaining 389, and 119 (31%) responded.

Interestingly, 85% of patients said that their readmission was for the same problem as the index admission (25% heart, 24% chest, 33% unsure of condition, other conditions all <5%). With hindsight, 40% of patients felt that they were not ready for discharge after their index admission, 45% felt that the readmission might have been prevented with better care or a longer index admission, 40% of patients felt an early follow-up outpatient appointment would have prevented readmission, 28% felt readmission could have been prevented by better post-discharge support from the primary care team and 20% felt social service input after discharge could have prevented readmission.

Listening to our patients may also help prevent emergency readmissions.

HEMANTHA CHANDRASEKARA
Specialty registrar

JAN MARSH
Nurse specialist

SARAH O'BRIEN
Nurse consultant

KEVIN HARDY
Consultant physician

Whiston Hospital, Prescot, Merseyside

How do I manage a patient with suspected acute pulmonary embolism?

Editor – I read with great interest Sheares' excellent review article on the management of patients with suspected acute pulmonary embolism (PE) (*Clin Med* April 2011 pp 156–9). I would, however, like to comment on the author's recommendations regarding the treatment of high-risk PE, previously known as massive PE.

Sheares, citing the study of Jerjes-Sanchez *et al*¹ which states that thrombolysis improves survival in patients with high-risk PE. However, the author neglects to report the observations from the International Cooperative Pulmonary Embolism Registry.² Although admittedly somewhat counterintuitive, the findings of this landmark study were that thrombolysis

did not reduce mortality or recurrence of PE at 90 days in high-risk PE.

Sheares confines the role of surgical embolectomy in high risk PE to patients who have failed thrombolysis or in whom thrombolysis is contraindicated. However, there is an emerging body of evidence supporting the use of primary embolectomy. Successful surgical embolectomy, using temporary cardiopulmonary bypass, was first reported by Denton Cooley 50 years ago.³ Thirty years later, Gulba *et al* compared the outcome of 13 patients with massive PE treated with surgical embolectomy and 24 such patients treated with thrombolysis.⁴ The surgically treated patients had a lower death rate as well as lower rates of bleeding and recurrence of PE. More recently, Fukuda *et al* have reported an operative mortality of only 5% in patients with massive PE undergoing emergent pulmonary embolectomy.⁵

Accordingly, primary surgical embolectomy should be considered favourably in centres with on-site cardiothoracic surgery. Given that the author's institution is an internationally acclaimed cardiothoracic centre, I would welcome her comments on her experience in this area.

JAMES J GLAZIER
Clinical professor of medicine
Wayne State University
Detroit, USA

References

- 1 Jerjes-Sanchez C, Ramirez-Rivera A, de Lourdes Garcia M *et al*. Streptokinase and heparin versus heparin alone in massive pulmonary embolism: a randomized controlled trial. *J Thromb Thrombolysis* 1995;2:227–9.
- 2 Kucher N, Rossi E, De Rosa M *et al*. Massive pulmonary embolism. *Circulation* 2006;113:577–82.
- 3 Cooley DA, Beall AC, Alexander JK. Acute massive pulmonary embolism: surgical treatment using temporary cardiopulmonary bypass. *JAMA* 1961;177:283–6.
- 4 Gulba DC, Schmid C, Borst HG *et al*. Medical compared with surgical treatment for massive pulmonary embolism. *Lancet* 1994;343:576–7.
- 5 Fukuda I, Taniguchi S, Fukui K *et al*. Improved outcome of surgical pulmonary embolectomy by aggressive intervention for critically ill patients. *Ann Thorac Surg* 2011;91:728–33.