extensive series in the literature that demonstrate its benefit. However, it could constitute a therapeutic alternative when symptoms persist and the haematoma has an extension shorter than the length of the stent, particularly if accompanied by a large aortic ulcer.

References


Reduction of treatment delay in patients with ST-elevation myocardial infarction: impact of pre-hospital diagnosis and direct referral to primary percutaneous intervention

We were interested to read the paper by Terkelsen et al., describing pre-hospital identification, by physicians, of patients suitable for primary angioplasty. We would suggest, however, that physician involvement in the decision to transfer a patient for primary PCI might be unnecessary if appropriate training and protocols for ambulance personnel are in place. In the UK, where ambulances are not generally physician-manned, several strategies have been evaluated to assess whether paramedics can accurately identify patients with acute coronary syndromes and refer directly to an appropriate hospital facility. For example, paramedics were able, on clinical grounds alone, to identify high-risk patients for admission to CCU. When a 12-lead ECG was available alongside a facility to discuss patients with CCU nurses prior to admission, paramedics were able to expedite CCU admission with a high degree of accuracy. In London, paramedics’ recognition of ST segment elevation was as good as that of emergency physicians, without the need to resort to telometry. Moreover, a study of paramedics’ identification of patients eligible for thrombolytic therapy demonstrated high accuracy.

We would suggest that in emergency medical systems without physician-manned ambulances, suitably trained paramedics could accurately identify patients with ST elevation MI and refer directly to an interventional facility, reducing delays to reperfusion.

References


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Reduction of treatment delay in patients with ST-elevation myocardial infarction: impact of pre-hospital diagnosis and direct referral to primary percutaneous intervention: reply

We appreciate that Quinn and colleagues were interested to read our paper. In the county of Aarhus, Denmark, primary percutaneous coronary intervention (primary PCI) is the preferred reperfusion therapy in patients with ST-elevation myocardial infarction (STEMI). Among patients scheduled for admission to non-interventional hospitals, a substantial reduction in treatment delay is achievable if pre-hospital diagnosis is combined with referral of patients directly to an interventional hospital. In this setting, acquisition of pre-hospital ECGs is mandatory. To triage patients on the basis of clinical grounds alone, as mentioned in the letter by Quinn and Whitbread, is not optional because a substantial number of patients would be transferred to the interventional hospital without having STEMI. However, we do agree with Quinn, Whitbread, Miller-Craig, Keeling, and others that ‘selected qualified paramedics’ may have the skills for establishing the pre-hospital diagnosis of STEMI, provided that the clinical evaluation is supported by acquisition of ECGs. It is worth noting, however, that Miller-Craig et al. did not report the accuracy of the diagnosis of STEMI in their study, and paramedic diagnosis was hypothetical only in the study by Whitbread et al. In the study by Keeling et al., treatment was actually based on pre-hospital diagnosis established by doctors with the use of telediagnosis, however, paramedic diagnosis was also hypothetical. Moreover, doctors identified 90% of patients with STEMI, whereas paramedics identified 71% only (P = 0.001). Consequently, if paramedics had been responsible for the initiation of fibrinolytic therapy, a substantial proportion of patients with STEMI would not have received this treatment. In addition, information concerning the positive predictive value of the diagnosis of STEMI when established by paramedics was not available.