



LETTER TO THE EDITOR

Integration of telemedicine in the clinical management protocol of patients with acute myocardial infarction: a practical experience in Tabriz

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Acute myocardial infarction occurs due to plaque blockage of a major coronary artery and timely reperfusion with vascular intervention or primary percutaneous coronary intervention (P.PCI) is a preferred treatment modality. One of the important goals of healthcare systems is to improve time indicators from the onset of cardiac pain symptoms to P.PCI (1-3). One of the most important solutions in this regard is the use of telemedicine technology. The current article reports the field observations from the emergency system of Tabriz city in Iran regarding the use of telemedicine.

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A successful practical experience in this city is the integration of telemedicine with the clinical practice guidelines for timely management of patients with acute myocardial infarction (or code 247). To this end, all ambulances stationed at the medical emergency system stations across the city have been equipped with telemedicine devices. Using this device, the patient's electrocardiogram is recorded at the scene of the incident and immediately transmitted to the interventional cardiologist on at the emergency department of the hospital. In cases suggestive of ST-elevation myocardial infarction, this provides the way for an accurate and early diagnosis of acute myocardial infarction and activation of code 247 in the pre-hospital setting. By activating code 247, patients are promptly transferred to hospitals equipped with telecardiology, cath lab and PCI capabilities, preventing time wastage and myocardial necrosis (1, 4). The average time from symptom onset to reperfusion has significantly decreased compared to previous years without telemedicine support. This integrated telemedicine and pre-hospital management model can be effectively replicated in other cities to reduce door-to-balloon times and improve outcomes in ST-elevation myocardial infarction.

In summary, it is possible to diagnose acute heart attack patients at the scene of the accident and to provide them with appropriate and safe quality care using telemedicine. In addition, timely and targeted transfer of the patient to a PCI-equipped hospital avoids wasted time, delays in vascular procedures, and the complications of myocardial necrosis.

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