Letter to the Editor

Letter by Mamkin et al Regarding Article, “Weekend Onset of Acute Myocardial Infarction Does Not Have a Negative Impact on Outcome in Japan”

To the Editor:

With great pleasure we read the article by Matsui et al. This is a well-written and very timely article which came from the large 35-clinical center Japanese Acute Coronary Study (JACSS) database and included 4,805 patients who were admitted within 48 h of onset of acute myocardial infarction (AMI) (3,526 patients with weekday onset and 1,279 patients with weekend onset. This large multicenter set of data enabled the investigators to conclude that there were no obvious differences in the in-hospital, 30-day, and 1-year mortality rates between the weekday- or weekend-onset AMI groups.

A few large North American studies, however, reported that patients admitted to hospital with AMI on weekends have significantly higher mortality, substantially longer door-to-balloon times and undergo less invasive procedures than those admitted on weekdays.2–4

Recently, we presented the outcomes of a similar study in which we evaluated patient outcomes with weekend (n=399) vs weekday (n=3,161) percutaneous coronary intervention (PCI) between January 2003 and December 2005.5 Compared to weekday PCI, weekend patients had a higher incidence of ST elevation MI (42.3% vs 17.1%, p<0.001), non-ST elevation MI (30.6% vs 20.5%, p<0.001) and lower incidence of unstable angina (18.3% vs 25.6%, p<0.001). In spite of higher procedural acuity, weekend PCI was not associated with any increase in in-hospital (2.1% vs 1.5%, p=0.47) or 9-month mortality (4.0% vs 3.8%, p=0.91) compared with patients undergoing weekday intervention.

Our study was a retrospective analysis and had a smaller sample size than the previous North American studies, which might explain differences in clinical outcomes. However, our results are consistent with the report by Matsui et al, emphasizing some uncertainty about clinical outcomes of patients with AMI occurring on weekdays vs weekends. There is clearly a need for further multicenter, international, randomized, prospective studies to improve the quality of care and patients’ outcomes with AMI worldwide.

References


Igor Mamkin, MD
Mariya Vaksman, DDS
Francis J Kiernan, MD
Raymond G McKay, MD
Division of Interventional Cardiology,
The Henry Low Heart Center, Hartford Hospital,
Hartford, CT, USA
William E Boden, MD
Division of Cardiology,
University at Buffalo Schools of Medicine and Public Health,
Buffalo General and Millard Fillmore Hospitals,
Buffalo, NY, USA

Circulation Journal Vol.72, May 2008