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## Clinical comparison of "normal-hours" vs "off-hours" percutaneous coronary interventions for ST-elevation myocardial infarction.

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**BACKGROUND:** High mortality rates were reported in ST-elevation myocardial infarction (STEMI) patients undergoing primary percutaneous coronary interventions (PPCI) "off-hours." The objective of this study was to evaluate this issue in a more recent population of patients with STEMI treated with PPCI in a high-volume tertiary center specifically dedicated to STEMI treatment. **METHODS AND RESULTS:** We analyzed in-hospital/1-year mortality among 985 consecutive patients with STEMI treated with PPCI between January 2003 and December 2005 in a high-volume (>1400 PCI/year) hub center in a STEMI provincial network organization during "normal-hours" (weekdays 08:00 am to 07:29 pm) and "off-hours" (weekdays 07:30 pm to 07:59 am and weekends). Most (61.2%) patients were treated during "off-hours". Clinical and angiographic characteristics of the "normal-hours" and "off-hours" groups were comparable (in both groups, glycoprotein IIb/IIIa were administered to approximately 80% patients). The off-hours group tended toward higher median (25th-75th percentiles) total ischemic time (199 [135-312] minutes vs 179 [126-285] minutes;  $P = .052$ ). Median electrocardiogram-to-balloon time was less than 90 minutes in both groups. Despite 20 minutes longer median total ischemic time, patients who underwent PPCI during "off-hours" showed similar post-PPCI Thrombolysis In Myocardial Infarction 3 flow grade and mean left ventricular ejection fraction. No difference could be observed between the 2 groups in terms of in-hospital and 1-year mortality rates. **CONCLUSION:** This study provides evidence that the clinical effectiveness of "normal" and "off-hours" PPCI can be equivalent, at least when performed at a center specifically dedicated to STEMI treatment with frequent use of glycoprotein IIb/IIIa agents.