

City or suburb, 15-call to angioplasty, management delays of ST elevation myocardial infarction (STEMI)



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Introduction :

In the strategy of ST-segment elevation myocardial infarction (STEMI) management, response time of a mobile care intensive unit (MCIU) may be influenced by urban population density, and accessibility to the catheterization laboratory (cath-lab).

Primary outcome:

Evaluate delays in STEMI management, for each stage, from onset chest-pain to the catheterization.

Methods :

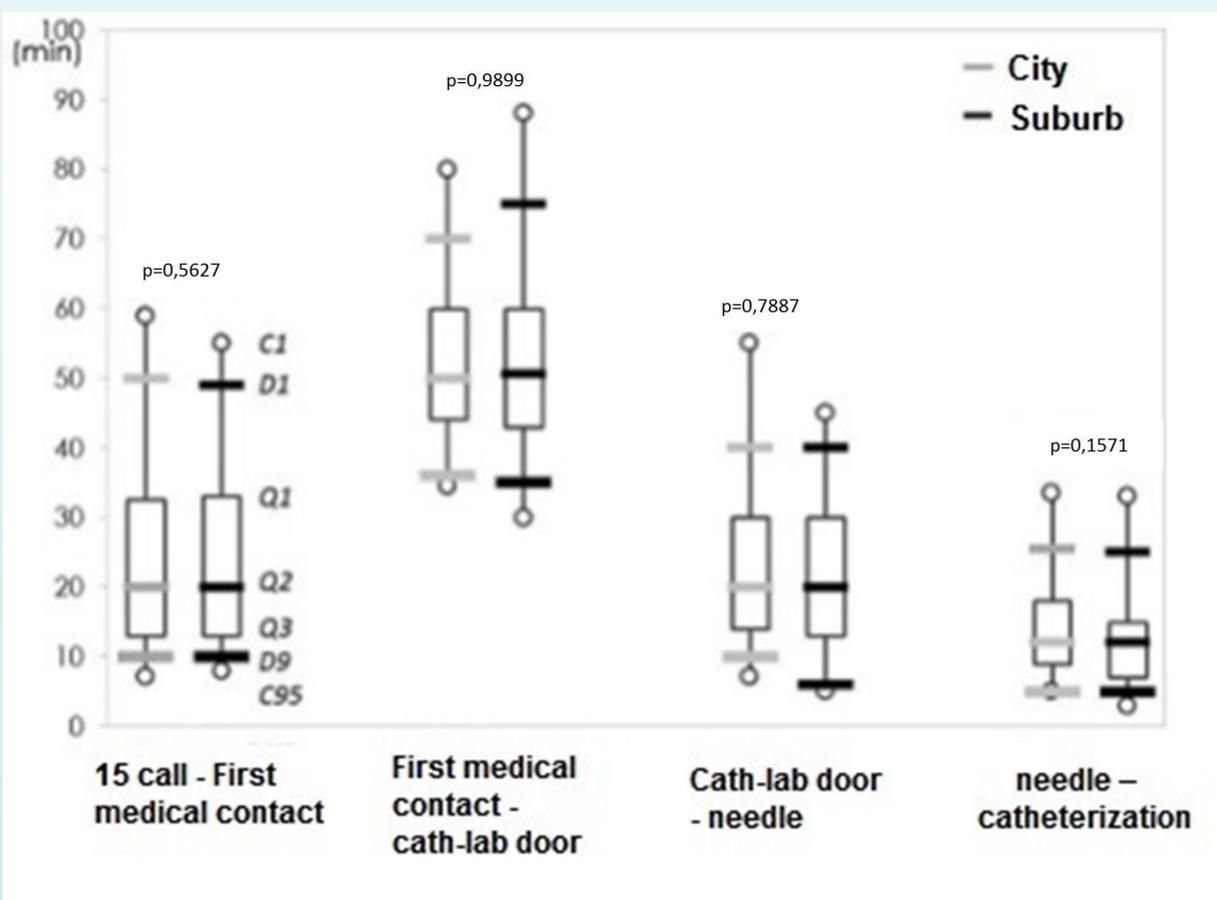
Data derived from a prospective register including non-complicated STEMI having primary percutaneous coronary intervention (PCI), managed by 6 medical care intensive units (MCIU) of a French city: 3 in town (T) and 3 in suburb (S). The observed variables were the place of management (T or S), the time delays of the various stages : time delay from chest-pain onset to the first medical contact (FMC) by the patient to the pre-hospital dispatching emergency medical service – time delay FMC to MCIU arrival – cath-lab door (cath-lab) – needle – catheterization (KT). We compared delays between MCIU T and S using the Wilcoxon test (p value<0,05).

Results :

Over three years (2012-2014), 547 STEMI have been included, T= 228 (42%), S= 319 (58%). Chart reports time delays of various stages. The median time delay from chest-pain onset to the first medical contact was significantly (p = 0.016) faster in town with less dispersion: T = 45 [20;115] min, S = 65 [23;152] min. By stage, after the FMC, there was no significant statistical difference.

Discussion :

The town patients are taken care of a few minutes faster than in the suburbs. The more dispersed distribution of cath-lab in the suburbs, but more accessible than in the city does not seem to influence the time delay of MCIU and does not affect the STEMI management.



Management delays of ST elevation myocardial infarction