Abstract: P1739

Does helicopter transport delay prehospital transfer for STEMI patients in rural areas? Findings from the CRAC France PCI registry

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On behalf: CRAC FRANCE PCI

Topic(s):
Acute Cardiac Care – Prehospital and Emergency Department Care

Citation:

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Regional health agency of CVL, Medtronic, Boston Scientific, Abbot, Biosensor, Terumo, Biotronik, Lilly Daichii Sankyo, Hexacath and Braun.

Background: Whether helicopter transportation for ST-Elevation Myocardial Infarction (STEMI) patients in France is the faster alternative is not known. Data from United States and Europe are controversial and studies have been limited to small series of patients.

Purpose: The aim of this study was to analyse delays in emergency medical system (EMS) transfer of STEMI patients from home to the nearest percutaneous coronary intervention (PCI) centre (primary transfer) or from non-PCI centres to PCI centres (secondary transfer) according to transport modality in a rural French region.

Methods and Results: Data from the prospective multicentre CRAC France PCI registry were analysed for 1911 STEMI patients: 410 transferred by helicopter (HEMS) and 1501 by ground transport (GEMS). The primary endpoint was the percentage of transfers with first medical contact (FMC) to primary PCI (PPCI) within the 90-min recommended in guidelines. The secondary endpoint was time FMC–PPCI. With HEMS, FMC-PPCI <90 min was less frequently achieved than with GEMS (9.8% vs 37.2%; odds ratio 5.49; 95% confidence interval [3.90; 7.73]; p <0.0001). Differences were greatest for transfers <50 km (13.7% vs 44.7%; p< 0.0001) and for primary transfers (22.4% vs 49.6%; p<0.0001). Median time from FMC to PPCI and from symptom onset to PPCI (total ischemic time) were significantly higher in HEMS group than in GEMS group (respectively 137 min vs 103 min; p<0.0001 and 261 min vs 195 min; p<0.0001). There was no significant difference in in-hospital mortality between the HEMS and GEMS groups (6.9% vs 6.6%; p =0.88).

Conclusion: Helicopter transport of STEMI patients was 5 times less effective than ground transport in maintaining the 90-min FMC-PPCI time recommended in guidelines, particularly for transfer distances <50 km.
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