Cardiac cath lab technology

WHAT IMPACTS DOOR-TO-BALLOON TIME—AN ANALYSIS FROM A SINGLE CENTRE IN A TERTIARY CARE GENERAL HOSPITAL

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Objective

Current data have shown that many factors impact Door-to-balloon (DTB) time in the patient of ST-elevation myocardial infarction (STEMI). However, major factors are diverse in different region of China. Our study was aim to analyse the impact factors which significantly prolonged the DTB time in our hospital.

Methods

We analysed the DTB time and its components from January 2008 to December 2010 in 301 consecutive patients presenting with STEMI. Then, we determined which factors significantly prolonged the DTB time.

Results

The median DTB time of all the patients was 149±78 min, the group was divided by DTB time, ≤120 min group and >120 min group. The median DTB time of two groups were 87±29 min and 201±68 min respectively. The components of DTB time included that the time of diagnosis in ED (21±7 vs 22±4, p>0.05), the time of consultation of cardiologist (19±8 vs 50±21, p=0.000), the time of explaining condition (16±7 vs 86±42, p=0.000), transferred to catheterisation laboratory (12±5 vs 13±3, p>0.05), preparation of catheterisation laboratory in working hours (8±2 vs 9±2, p>0.05), preparation of catheterisation laboratory in on-call hours (40±6 vs 42±8, p>0.05). Besides, there were more STEMI patients presenting to hospital during working hour in ≤120 min group (31.9% vs 63.2%, p<0.05).

Conclusions

In our tertiary care general hospital, the time of consultation of cardiologist and explaining condition really account for the prolonged DTB time. What is more, the patients presented to hospital during working hour may shorten the DTB time. Therefore, directly awaking the catheterisation laboratory by emergency department and promoting the cognitive level of primary PCI in public may shorten DTB time.