

Cardiology concern on new H3N2 influenza outbreak

Yeni H3N2 grip salgınının kardiyoloji ile ilgisi

The present public health concern is on the new outbreak of influenza, H3N2 flu in USA. The pandemic outbreak is expected. Similar to the previous outbreaks of influenza, the cardiology concern is of interest. Focusing on the previous swine flu epidemic 2009, the cardiac involvement and cardiac presentation is mentioned (1) and this is the topic for consideration in the present H3N2 outbreak. According to a recent retrospective study, it was concluded that "A/H3N2 viruses, are directly associated with acute IHD-related events in older individuals" (2). Gurevich et al. (3) could demonstrate the presence of H3N2 influenza viral RNA in vascular atherosclerotic lesions and proposed for the chance for atherosclerosis progression due to the identified RNA. In addition, the case of influenza-related myocarditis in H2N2 influenza virus infection is also reported (4). Indeed, the animal model study can demonstrate the viral invasion into the cardiac tissue during the H3N2 influenza virus infection (5). Although there is still no data on clinical cardiology aspect on the infected cases in the present H3N2 flu outbreak, the consideration of cardiac problem is required. Better than treatment, the prevention of H3N2 is recommended and special attention on any patients with cardiac problem is needed. For H3N2 influenza vaccination, the poor vaccine response is observed the patients with heart failure (6) and double dose vaccination is the way to increase immunogenicity (7). To prepare for the possible pandemic H3N2 influenza, the practitioners should concern on the cardiac presentation of the infection and should provide prevention to their patients with cardiac problems.

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Elective percutaneous coronary intervention without on-site cardiac surgery: an Iranian survey

Kalp cerrahisi olmadan elektif perkütan koroner girişim: İran inceleme çalışması

Disagreement exists on percutaneous coronary intervention (PCI) performance in off-site surgical capability in the current American College of Cardiology Foundation/American Heart Association/Society for Cardiovascular Angiography and Interventions guideline. Despite this recommendation, number of the off-site surgical backup centers (OFSC) has markedly increased (1). Hence, some studies conducted to survey that whether the PCI without surgical backup is safe same as surgical capability center. Hereby, we attempted to report our observational experience in the elective PCI outcomes including high-risk procedures from October 2005 through August 2010 at an OFSC, in the Urmia, Iran.

We retrospectively collected and analyzed the basic characteristics and clinical outcomes of 675 patients who underwent elective PCI. This study was approved by our institutional review board. The outcomes included in-hospital death and stroke; PCI-related myocardial infarction (MI); emergency bypass surgery as an unplanned patient transferring to undergo surgical revascularization; coronary and access point related complications; and nephropathy requiring dialysis. The high-risk interventions included chronic total occlusion, bifurcation, lesion length >20 mm, left ventricular ejection fraction (LVEF) <35%, patients with acute coronary syndrome including unstable angina and non-ST elevation MI and a grafted vessel intervention.

The males were predominant (69.8%) with age of 56.8±11.6 years. The success rate was 97% and failing to complete revascularization happened in twenty patients (3.0%). Three post-procedural myocardial infarctions developed on 30 minutes, 36-hour and 72-hour following procedure (0.45%) and in-hospital death occurred in one patient (0.15%). In addition, one patient was emergently transferred to a tertiary center and underwent CABG (0.15%) without any major complications. Gastrointestinal bleeding was developed in two patients (0.3%) that those were treated successfully.

We found that the elective PCI including high-risk procedures can be performed with good outcomes at OFSC similar to an on-site center. Wennberg et al. (2) reported the elective procedure related mortality of 6.0% at OFSC versus 3.3% at an on-site center, among patients who underwent elective and non-elective PCI. According to this finding, they believed that the elective PCI in the off-site facilities may be harmful. In contrast, Gunalingam et al. (3) reported the

elective and non-elective PCI outcomes with success rate of 95%; therefore, they showed that the PCI without surgical backup can safely be done by high experienced operator. Despite these inconsistent findings, a meta-analysis demonstrated that PCI outcomes including mortality or emergency CABG at the OFSC were not associated with more incidence compared with on-site center (4).

Moreover, previous studies recommended some criteria to improve the PCI outcomes at OFSC consisting of high-volume and experienced operator; well-trained nurses and personnel; well-equipped laboratory; immediate transfer system protocol; case selection criteria to exclude high risk patients; regional or national data registry; and case review (5).

Given our results and previous investigations, may be it is time to consider that the elective PCI including high- and low-risk patients can safely be performed in the OFSC similar to the on-site center considering well-trained operator, experienced team and transport system. However, further multi-centrals and randomized trials are required to evaluate this issue.

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