中文題目：治療性低體溫及心導管檢查改善到院前心跳停止病患預後

英文題目：Therapeutic Hypothermia and Immediate Percutaneous Coronary Intervention is associated with better survival after out-of-hospital cardiac arrest

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Introduction:　In recent years, therapeutic hypothermia (TH) has been used to improve outcomes in patients who have experienced out-of-hospital cardiac arrest (OHCA). Acute coronary occlusion is the leading cause of cardiac arrest. We performed an analysis to assess the effect of percutaneous coronary intervention (PCI) and TH for OHCA patients.

Methods: A total of 58 OHCA patients who had return of spontaneous circulation after OHCA without severe medical disease and trauma history were enrolled. 23 patients underwent therapeutic hypothermia (TH), which was performed using large volume ice crystalloid fluid (LVICF) infusions in the emergency room. Ice packs and conventional cooling blankets were used to maintain a body temperature of 32-34°C, according to standard protocol for 24 hours. Patients in the control group received standard supportive care without TH. Hospital survival and neurologic outcomes were compared.

Results: There was no significant difference between the groups with regards to patient characteristics, underlying etiologies and the disease severity. In the 23 patients that received TH, 17 were alive at hospital discharge. In the 35 patients belonging to the supportive care group, only 11 were alive at hospital discharge (73.91% vs.31.43%, p = 0.0015). Approximately 52.17% of patients in the TH group had good neurologic outcomes (12 of 23) compared with the 20% (7 of 35) of patients in the supportive group (p = 0.01). The survival rate at discharge in patients received TH and PCI, TH without PCI, PCI without TH, and without TH and PCI were 75%, 71%, 44% and 21% (P = 0.007).

Conclusion: TH and PCI can improve the outcome of OHCA patients. Further large scale studies are needed to verify our results.