OVER 20-YEAR TREND OF IN-HOSPITAL MORTALITY IN PATIENTS WITH CARDIOGENIC SHOCK USING PERCUTANEOUS EXTRACORPOREAL MEMBRANE OXYGENATION: COMPARISON BETWEEN ACS AND NON-ACS PATIENTS

Poster Contributions
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Authors: Manabu Matsumoto, Satoshi Yasuda, Taichii Yamane, Taichi Adachi, Tadayoshi Miyagi, Toshiyuki Nagai, Masashi Fujino, Yasuhide Asaumi, Reon Kumasaka, Tetsuo Arakawa, Jun-ichi Kotani, Hiroki Sakamoto, Teruo Noguchi, Yoichi Goto, Hiroyuki Yokoyama, Toshihisa Anzai, Wataru Shimizu, Masaharu Ishihara, Takeshi Nakatani, Junjiro Kobayashi, Hisao Ogawa, National Cerebral and Cardiovascular Center, Osaka Suita, Japan

Background: Percutaneous extracorporeal membrane oxygenation (ECMO) has been utilized for patients complicating cardiogenic shock due to acute coronary syndrome (ACS), myocarditis or cardiomyopathy. However, it remains unknown whether mortality has changed over 20 years between ACS and non-ACS.

Methods: We studied 113 consecutive patients (M/F, 81/32; age, 59±18 years) who received ECMO between 1992 and 2012. Cardiogenic shock was caused by ACS in 61 patients, and by non-ACS in 52 patients including cardiomyopathy (n=20), myocarditis (n=20), valvular disease (n=2), infectious endocarditis (n=2), and arrhythmia (n=8). Patients were divided into 3 groups in chronologically order; 1992-1998 (1st, n=15), 1999-2005 (2nd, n=14), and 2006-2012 (3rd; n=32).

Results: Over 20-years, in-hospital mortality remained high in both ACS (1st,87%; 2nd,86%; 3rd;84%; overall 88%) and non-ACS groups (1st,0%; 2nd,44%; 3rd,52%; overall 46%).Median time from admission to ECMO support was 51 min. Importantly, it was higher in ACS than non-ACS group (100 min vs 74 min P<0.05). In patients with ACS, in-hospital mortality were associated with high prevalence of cardiopulmonary arrest (29% vs 0%, p=0.02) and KillipIVstatus on admission (79% vs 38%, p=0.02) and high disseminated intravascular coagulation score (26 % vs 0%, p=0.04).

Conclusions: