VA-ECMO SURVIVAL AT HAUKELAND UNIVERSITY HOSPITAL DURING 2008 - May 2016

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Objectives: To analyze patients survival rates until discharge or transfer following veno-arterial ECMO (VA-ECMO) at Haukeland University Hospital during 2008 - May 2016, and to compare with the Extracorporeal Life Support Organization (ELSO) registry.

Material and methods: Totally 60 patients had VA-ECMO with Maquet Cardiohelp® or Rotaflow®. Additional assist devices were short-term LVAD (Impella CP®) in 12 (20%) and IABP (Maquet Cardiosave® or CS100®) in 24 (40%). Clinical data were extracted from the hospitals digitalized patient files and the local perfusion registry.

Results: There were 48 male (80%) and 12 female (20%) with median age 51 (range 1.5-73) years. Overall survival to discharge of 43.5% in the adult Cardiac group (n=46) was comparable with 41.8% of 7324 corresponding patients in the ELSO registry. Nine of our patients with overall survival to discharge of 33% were comparable with the ELSO adult Extracorporeal cardiopulmonary resuscitation (ECPR) group, counting 2379 patients with 30% survival. Survival to discharge within the main VA-ECMO clinical subgroups were: postcardiotomy cardiogenic shock (n=30) 33.3%, acute coronary syndrome (n=11) 36.4%, cardiomyopathy (n=8) 100%, accidental hypothermia (n=7) 14.3% and acute myocarditis (n=2) 100%. Seven patients (11.7%) were transferred to Oslo University Hospital for heart transplant (n=3), long-term LVAD (n=1) or other reasons (n=3) with survival to discharge in six (85.7%).

Conclusion: Overall survival of VA-ECMO patients at Haukeland University Hospital correlated well with survival in the ELSO registry. Survival depends much on the underlying indication. The VA-ECMO strategies applied at Haukeland University Hospital seems comparable with those used internationally.

Keywords: VA-ECMO, Outcomes, ELSO, Cardiac failure