CLINICAL COURSE AND PROGNOSIS OF COMPLICATED INFECTED ENDOCARDITIS IN CRITICALLY ILL PATIENTS; OUR 13 YEARS EXPERIENCE IN AN URBAN AREA OF A DEVELOPING COUNTRY

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Introduction: To date, studies emphasize on complicated Infective endocarditis (IE) in critically ill patients requiring admission to the medical intensive care unit (MICU) or coronary care unit (CCU) are far and between. Studies in the large center showed the observed mortality of >80% for patients with complicated IE admitted to ICU setting in Western countries [1-3].

Objective: To study incidence, clinical course and prognostic factors in patients admitted to MICU/CCU because of complicated course of infective endocarditis.

Method: This is a 12 – years retrospective single – center observational study of 60 patients with complicated IE admitted to MICU and CCU in the main referral hospital in Malaysia between 2003 and 2014. All patients were scheduled for Transesophageal Echocardiography (TOE) within 7 days of presentation. The patients were identified via the hospital information system.

Results: From the 60 patients diagnosed with IE, 28 were male and mean age for all patients was 45 ± 10yrs. Reasons for transfer to the ICU were severely symptomatic congestive heart failure in 57%, septic shock with hemodynamic instability in 45%, poor Glasgow coma scale requiring intubation or ventilator support at15% and cardiopulmonary resuscitation in 9%. Inotropes were required in 73% and multiorgan failure developed in 64% of the patients. Microbiology investigation shows gram-positive cocci were found in 95% of all positive cultures and 5% were found to be
culture negative. Approximately 10% of the patients had both gram-positive cocci and fungal infections. Surgical intervention was conducted in 27% of the patients and the remaining being medically treated. In-patient mortality was 28%, overall, in which, medically treated patients had a mortality of 78%. Interestingly, 54% of the patients developed mobitz type II heart block while 18% developed a complete heart block requiring pacing intervention. Using multivariate analysis, patients who developed acute kidney injury prior transfer to ICU (OR 5, 95% CI 1.04–24.03, P = 0.04) and vegetation size of > 15mm were identified as predictors for in-patient death.

Conclusion: Our study concludes that patients with complicated IE requiring ICU care shows poor prognosis. However, the data suggest early surgical intervention as well as early utilization of TOE may prevent higher mortality in complicated IE patients in ICU. Nevertheless, steps are now being implemented for early cardiac surgery for patients with complicated IE.