

**Heart Congress 2019: Midterm experience of adult extracorporeal membrane oxygenation
Cardiorespiratory failure - Kewal Krishan - Max Super Specialty Hospital****Kewal Krishan**

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Extracorporeal Membrane Oxygenation (ECMO) is a rescue therapy for critically ill patients with reversible cardiorespiratory pathology and those who have probability of death around 80% despite maximal conventional treatment. The positive results of the recent trials have stimulated our interest to use ECMO for life threatening conditions due to cardiorespiratory failure. Here we describe our experience at a tertiary care center in India. We established an adult ECMO program for cardiorespiratory support in April 2013. In the last five years, we supported 60 patients on ECMO and it was only considered once the conventional therapy deemed failing. A retrospective analysis of our patient data was performed to collect information regarding patient demographics, indication for ECMO, type of ECMO and outcomes. A total of 60 patients received ECMO during 2013 to 2018. The current examination was directed with endorsement of the Institutional Ethics Committee (No.2016–0147–5B0). The requirement for educated assent was deferred because of the review idea of the investigation. All patients with post-horrendous cardiopulmonary disappointment between March 2006 and July 2016, were assessed by the calculation determination convention portrayed in our past reports. During the examination time frame, an aggregate of 43 grown-ups experienced ECMO because of post-horrendous aspiratory as well as cardiopulmonary failure. During pre-ECMO the board, dynamic draining sources were controlled, liquid revivals were augmented, and correctable pneumonic affront were recognized and rewarded before considering ECMO arrangement. Patients giving obstinate stun or encountering cardiopulmonary revival (CPR) were bolstered utilizing the venoarterial (VA) method of ECMO. The venovenous (VV) method of ECMO was held for patients with constant hypoxia or hypercapnia

meeting the Berlin meaning of intense respiratory misery condition (ARDS), but without contraindicated serious aspiratory hypertension (mean pneumonic vein pressure >45 mmHg), high dosages of inotropic support, or a past filled with heart failure or revival. Patients were enlisted for quick passage on the off chance that they were neglecting to keep up adequate oxygenation ($PaO_2/FiO_2 < 60$ at a positive end expiratory weight [PEEP] >10 mmHg) after 2 hours of forceful treatment. A few patients at first avoided from quick passage were set on ECMO support in the wake of displaying dynamic weakening and meeting moderate section rules. The mean age was 36.4 years (range 18-57 years), 42 male and 18 female. Out of 60, 10 were Veno-Arterial (VA) and 50 were Veno-Venous (VV) ECMO. In VA ECMO the first patient had intractable arrhythmias and second had acute viral myocarditis leading to refractory cardiogenic shock. Out of 50 patients of VV ECMO, 38 viral pneumonia, 7 bacterial pneumonia and 3 with fulminant fungal infection leading to ARDS 2 had Wegener's granulomatosis. ECMO was instituted by peripheral cannulation in all patients. Average support time was 13 days (range 7 to 52 days). Thirty six patients (60%) were successfully separated from ECMO and 35 survived to hospital discharge. Four patients had major complications including pump failure and bleeding. One underwent lobectomy for multiple bronchopleural fistulae in right lung. ECMO is salvage therapy in patients with life threatening refractory circulatory shock or severe ARDS. This therapy has the potential to save lives if applied in time and in appropriate clinical settings.