rest of the world if there is any break in the chain of screening the affected in the incubation period.

Current reported experience is discussed.

A7 Initiating an Adult and Pediatric Extracorporeal Membrane Oxygenation Program in a Developing Country: Challenges, Successes, Opportunities, and Road Ahead

Maqsood M. Elahi¹

¹Department of Adult and Paediatric Cardiothoracic Surgery, Heart-Lung and Research Institute, Cardiac Eye International Foundation, Texas, United States

In developing countries, there are a growing number of patients with complex heart and lung disease (both adults and pediatric population) that is coupled with an environment of scarce resources. There is, therefore, a huge need for the adoption of modern medical technology in the field of mechanical circulatory systems, including extracorporeal membrane oxygenation (ECMO) treatments. The development of ECMO in particular has been extremely slow, and no system is currently approved and available for clinical application in developing countries, such as Pakistan. Reasons include financial constraints that have been a barrier to the development of robust adult and pediatric cardiac intensive care units critical to the success of such programs. Second, because of substantial resource limitations, the existing models of such care cannot be applied in their existing forms without addressing the numerous challenges that limit the delivery of ECMO in the developing world. Other limitations include absence of skilled technologists and material resources for adapting such technologies. Additionally, there is need to adopt strategies for delivering to the patients and health care providers such technologies at affordable costs. Here, we present a framework for the establishment of a new ECMO program in a resource-limited environment typically encountered in the developing world and the emerging economies.

A8 Management of Hemopneumothorax on Venoarterial Extracorporeal Membrane Oxygenation in a Patient with Acute Viral Pneumonia, Kyphoscoliosis, and Hypothyroidism

Pramod Sarwa,¹ Raghuvir Singh Khedar,¹ Vaibhav Bhargava,¹ Kishore Mangal,¹ Ajit Bana,² Saurabh Jaiswal,² Navneet Mehta,³ Krishna K. Sharma,⁴ Anil Kumar Sharma,¹ Yatendra Gupta,¹ Yogendra Gurjar,¹ Mukta Tiwari²

¹Department of Critical Care, Eternal Hospital, Jaipur, Rajasthan, India

²Department of CTVS, Eternal Hospital, Jaipur, Rajasthan, India

³Department of Cardiac Anesthesia, Eternal Hospital, Jaipur, Rajasthan, India

⁴Department of Pulmonology, Eternal Hospital, Jaipur, Rajasthan, India

Introduction: Extracorporeal membrane oxygenation (ECMO) is becoming an important therapeutic option for patients with severe acute respiratory distress syndrome (ARDS). Pneumothorax is a known complication of mechanical ventilator strategy in ARDS. Anticoagulation given during ECMO increases the chance of uncontrolled bleeding. We report management of hemopneumothorax in a patient with kyphoscoliosis, hypothyroidism, and acute viral pneumonia in a patient with severe ARDS who was on ECMO support.

Case Report: We report a 55-year-old woman, a known case of kyphoscoliosis and primary hypothyroidism received with refractory hypoxemia. The patient was immediately intubated and put on mechanical ventilation. In view of high fraction of inspired oxygen (FiO_2) requirement (severe ARDS) on ventilator, prone positioning was done. Due to high positive end-expiratory pressure (PEEP), she developed sight-sided pneumothorax leading to implantable cardioverter-defibrillator (ICD) insertion. Still she was not maintaining peripheral capillary oxygen saturation (SpO_2), and chest X-ray (CXR) worsened. She was put on ECMO. During ECMO, she developed bleed from ICD site. Local site adrenaline infiltration was done. Massive blood transfusion was done (13 units in 24 hours). Target activated clotting time (ACT) level was kept on lower side and bleeding stopped. CXR revealed right hemothorax (clots). Till seventh day of ECMO, the patient did not show any improvement, so thoracotomy was done on ECMO and clots were retrieved. Postthoracotomy CXR revealed lung expansion. Following this, the patient had massive bleed for which massive blood transfusion (packed red blood cell [RBC], random donor platelets [RDP], single donor platelets [SDP], cryoprecipitate, fresh frozen plasma [FFP]) was done. On 01/11/17 (eighth day), the patient was weaned off from ECMO. Post ECMO, her FiO_2 requirement was 65%. Computed tomographic (CT) scan of her chest revealed bilateral diffuse ground-glass opacities with septal thickening, and her bleeding stopped. In next 3 days, her FiO_2 requirement was increased so she was started on steroid and diuretics, and antibiotics were escalated. The patient's condition did not improve, and she was discharged against medical advice.

Conclusion: Management of hemopneumothorax on ECMO is a very challenging task due to anticoagulation. Massive bleeding needs blood transfusion, targeting low ACT during ECMO. Surgical exploration on ECMO is also challenging, but with careful planning, surgery can be managed well.

A9 Venoarterial Extracorporeal Membrane Oxygenation in Case of Drug-Induced Stress Cardiomyopathy—A Lifesaving Intervention

Sundar Singh Subash,¹ Shaji Palangadan,² Suresh Kumar³

¹Department of Cardiac Anaesthesia, Kerala Institute of Medical Sciences, Trivandrum, Kerala, India

²Department of Cardiothoracic and Vascular Surgery, Kerala Institute of Medical Sciences, Trivandrum, Kerala, India

³Department of Critical Care, Kerala Institute of Medical Sciences, Kerala, Trivandrum, India