

Pediatrics

TYPE: Case Report

TOPIC: Pediatrics

A SUCCESSFUL COLLABORATION BETWEEN ADULT AND PEDIATRIC INTENSIVISTS: VENO-VEINUS EXTRACORPOREAL MEMBRANE OXYGENATION FOR A PEDIATRIC PATIENT WITH LIFE-THREATENING TRACHEAL OBSTRUCTION

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INTRODUCTION: Mediastinal tumors are rare in pediatric population. Early detection, prevention and treatment of life-threatening events constitute a challenge.

CASE PRESENTATION: A previously healthy 13 years old boy is transferred in our pediatric intensive care unit for worsening status asthmaticus despite treatment. At admission, he is intubated for respiratory arrest. However, ventilation is only possible by manual insufflation because of high airway resistance. Tracheo-bronchoscopy shows a tracheal extrinsic compression difficult to cross by fiberoptic. CT-scanner confirms an anterior mediastinal mass (AMM). The adult-ECMO team places VV-ECMO immediately. Diagnostic workup and surgical biopsy concludes to non hodgkin lymphoma. The ECMO is weaned after 6 days of appropriate chemotherapy and mechanical ventilation the next day.

DISCUSSION: Most of AMM in children are lymphoma, generally responsive to chemotherapy. However, mass compressing airways or large blood vessels can lead to ventilation/perfusion mismatch and cardio-pulmonary collapse. Sedation and supine position increase this risk. Reports of ECMO for AMM demonstrate feasibility for rescue or stabilization, and efficiency of chemotherapy during support. In Belgium, pediatric-ECMO is limited to centers offering congenital cardiac surgery and initiation may be delayed. With the adult-ECMO program implemented in our hospital, this is the fifth case of pediatric rescue by ECMO.

CONCLUSIONS: The diagnosis of AMM is challenging and the physicians need to be aware of the risk of collapse and rapid worsening with sedation. The adult-ECMO team, with experienced surgeons and pediatric protocols, can allow us to initiate adequate and immediate life-saving treatment and serve as a bridge for transfer in expert center.

DISCLOSURE: Nothing to declare.

KEYWORD: Mediastinal tumor

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