Mitral valve replacement through mini sternotomy after long ECMO course: Case report

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BACKGROUND

Mitral regurgitation (MR) is defined as an abnormal reversal of blood flow from the left ventricle to the left atrium (LA). It is caused by disruption in any part of the mitral valve apparatus. Surgical intervention remains the mainstay of management for severe cases.

Case summary

We are reporting a case of pneumonia with severe sepsis, that had complicated hospital course, as the patient developed multi-organ failure that needed early mechanical ventilation and then Venovenous Extracorporeal Membrane Oxygenation (VV-ECMO) for 29 days, hemodialysis for acute kidney injury and inotropic support; He might be the first case of COVID19 in our hospital. His condition was complicated with severe mitral valve regurgitation during his hospital admission. Mitral valve replacement was done after stabilization of the patient and decannulation of VV-ECMO after adequate resuscitation under intensive care unit.

Learning point

Our report demonstrates that the use of a long term Venovenous Extracorporeal Membrane Oxygenation (VV-ECMO) as a bridge to stabilization, facilitates management of the critically ill respiratory failure patient with severe MR and patient outcomes.

Discussion

Our report demonstrates that the use of a long term VV-ECMO as a bridge to stabilization, facilitates management of the critically ill respiratory failure patient with severe MR and patient outcomes. Still the long-term results and the optimal timing of intervention need more research to define.

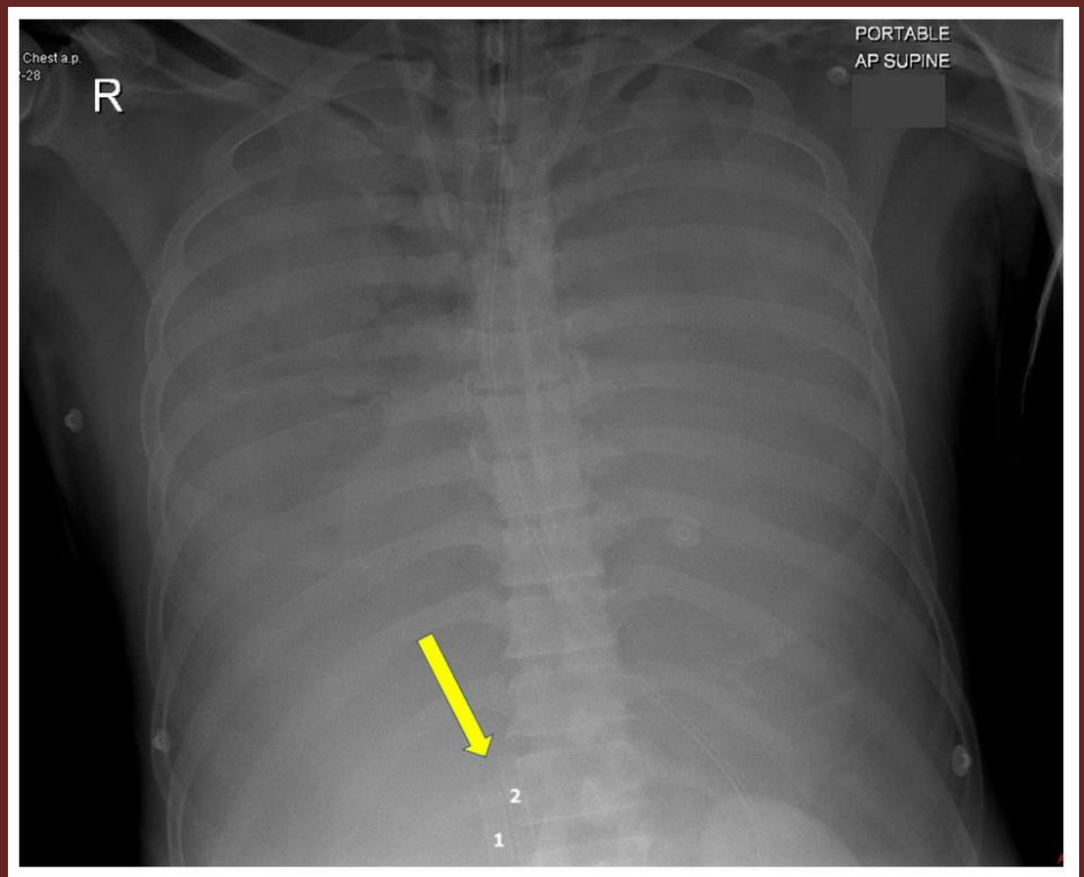


Figure 1. Antero-posterior supine chest x ray after inserting the VV ECMO lines, showing the consolidated lungs. Theyellow arrow is pointed to the tips of the ECMO lines (1— drainage cannula, 2—return cannula).