ACUTE RESPIRATORY DISTRESS SYNDROME (ARDS) CAUSED BY INFLUENZA A/H1N1 INFECTION IN A 10-YEAR-OLD GIRL TREATED WITH ANTIVIRAL THERAPY AND EXTRACORPORAL MEMBRANE OXYGENATION (ECMO)

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BACKGROUND

Acute respiratory distress syndrome (ARDS) is a devastating disorder that presents with overwhelming pulmonary inflammation leading to hypoxia and respiratory failure. It has been reported to be one of the most devastating complications of the Influenza A/H1N1 infection.

CASE REPORT

We report a case of a 10 years old girl presented in emergency room in January 2018 with a 24 hrs history of shortness of breath following several days of an influenza-like illness. At presentation, she was admitted in intensive care unit because of respiratory failure requiring urgent intubation and mechanical ventilation. The initial chest radiograph revealed complete consolidation of the left lung with atelectasis. Influenza A/H1N1 virus was confirmed by *real-time polymerase chain reaction* (RT-PCR) on respiratory secretions. Bacterial cultures were negative. He was treated with oseltamivir. Within 48 hrs after hospital admission the patient had severely impaired gas exchange despite maximum respiratory support on the ventilator and the chest radiograph showed bilateral consolidation (Fig.1). For this reason veno-venous ECMO (VV-ECMO) and prone positioning had to be established. VV-ECMO was provided for a total of 10 days and could afterwards be successfully explanted. The patient rapidly improved and control chest radiograph showed normal lung morphology (Fig.2). The girl could be discharged from the hospital after a total of 22 days with full resolution of symptoms.

Fig.1

Fig.2

CONCLUSIONS

These findings suggest that anti-viral drugs and ECMO can play an important role in the improvement of ARDS caused by Influenza A/H1N1. However, influenza vaccination remains the best strategy to prevent complicated influenza.