

# High-Flow Nasal Cannula Oxygen Therapy in H1N1 respiratory pregnancy distress: our experience

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Argomento: Caso clinico

Pregnant women and their fetuses are at high risk of infection with H1N1 influenza A virus, with increased rate of complications and hospitalization (1).

The treatment of choice is oseltamivir and if needed, non-invasive either invasive ventilation .

High-flow nasal cannula (HFNC) oxygen therapy is a non-invasive treatment widely used in acute respiratory failure that could be used in this condition: flow rate and  $FiO_2$  of heat and humidified oxygen can be titrated based on patient's requirements (2) (3)

A 32-year-old woman referred to our hospital at 36 week of gestation, for intrahepatic cholestasis . Two days later she developed fever, cough, exertional dyspnea, tachypnea and desaturation. The patient underwent emergency cesarean section: intraoperative gas analysis showed an acute respiratory failure with hypoxemia (P/F 135) , so she was immediately admitted in our ICU. Nasopharyngeal swab was positive for influenza A H1N1 virus.

CT scan revealed pulmonary infiltrates, ground-glass opacities, consolidations and pleural effusion in both lungs.

We started oseltamivir , treating respiratory distress for 24 hours with NIMV ( Peep 10 cmH<sub>2</sub>O,  $FiO_2$  40%) with a slight improvement in gas exchanges (P/F 203).

To increase compliance, tolerance and comfort of the patient , we alternated with HFNC oxygen therapy(60L/min,  $FiO_2$  40%) for 24h with reduction of dyspnea and improvement in gas analysis (P/F > 260 in the first day, P/F>300 in the second day).

Giving a very high flow of gas in a tachypneic patient, increasing FRC and causing alveolar recruitment, HFNC contribute alleviation of respiratory distress, reduction of ICU length of stay and a faster improvement of clinical conditions with a comfortable device that allows to eat, drink and move without interrupt treatment.

Despite there is still much debate regarding the role of HFNC , this special case showed his successful use in a post-partum respiratory distress