Conservative Management of Severe COVID-19 Pneumonia in the 3rd Trimester

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Abstract:

Background: The novel coronavirus (SARS-CoV-2) has significantly affected the healthcare system throughout the past year. Regarding obstetrics, it has been an extremely challenging situation as the infection could have a negative impact on the mother as well as the fetus. The available evidence is limited to a handful of case reports and case series. The purpose of this clinical scenario is to aid by sharing our interesting experience and enriching the clinical evidence slightly further. Case report: a 25-year old Turkish woman, 33 weeks pregnant, with limited English language presented with fever, persistent cough, shortness of breath, anosmia, myalgia, vomiting, lethargy and responding only to sounds. Five days prior, she tested positive for SARS-CoV-2 using reverse transcription-PCR test. Accordingly, she was admitted and required continuous oxygen support. Given the severity of her symptoms, an emergency Caesarean section (CS) was planned. However, with one to one close observation, prompt planning and multidisciplinary teams (MDT) involving 9 different clinical teams including; obstetrics, medics, anesthetics, respiratory team, critical care outreach, microbiology, physiotherapy, midwives and interpreters, her symptoms improved. Therefore, our plan for CS was deferred, and the patient was discharged 9 days later. Afterwards, she delivered as planned at 39 weeks by elective CS on account of cervical fibroid and previous CS.Conclusion & Significance: Acute respiratory distress syndrome (ARDS) on its own is not an absolute indication for immediate delivery in COVID-19. Providing the oxygen requirement is under control and both mother and baby are otherwise stable, we suggest avoiding delivery of an immature baby and risk the outcome of this pregnancy. We would like to acknowledge that teamwork and constant care are the epitome of managing every challenging SARS-CoV-2 case successfully during pregnancy.

Recommendations: Emergency delivery should not be offered in the absence of fetal distress or intractable maternal disease.

Image

Case reports

Case reports	Time of infection	Time of delivery	Oxygen support antenatally.	Mode of Delivery	Vertical transmission	Recovery
a. Lowe et al.[1]	40+2	40+3	Nil.	NVD	No	Full recovery
b. Ronnie et al.[2]	32+1	32+6	Oxygen mask	Emergency CS	No	Full recovery
c. Federici et al.[3]	23+5	33+4	Ventilator	NVD	No	Full recovery
d. Oliva et al.[4]	29+3	30+5	Oxygen mask	Emergency CS	No	Full recovery
e. Takayama et al.[5]	36	37+1	Oxygen mask	Emergency Cs	No	Deteriorated, ECMO
f. Alsayyed et al.[6]	26+2	38+4	Ventilator	NVD	No	Full recovery
g. Abourida et al.[7]	31	31+1	Oxygen mask	Emergency CS	No	Full recovery †

The table shows seven case reports of severe covid-19 infection in pregnancy. Three of the reported cases managed to have normal vaginal delivery (NVD). However two of those three ladies [f] and [c] required mechanical ventilation for 23 and 10 days respectively and still they completely recovered. The other four cases who delivered by emergency caesarean section (CS), one of them [e], several hours after the surgery ,she developed severe ARDS and was intubated and required extracorporeal membrane oxygenation (ECMO) after failure of mechanical ventilation. The other reported case [g] unfortunately the premature baby died on day 5 because of septic shock and respiratory failure. As per the reported cases, Three out of seven in addition to our case were managed conservatively and clearly showed better outcome. These evidence come in accordance with our conservative approach and suggest that iatrogenic delivery can be avoided. The role of the conservative management should be strongly considered as a primary approach.

†: The baby unfortunately died on day 5 because of septic shock and respiratory failure.

References:

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Photograph



Biography

Dr. Elkhouly is a speciality trainee in obstetrics and gynaecology at Northern Lincolnshire and Goole NHS Foundation Trust, who has always been inspired by research and very enthusiastic about adding to and enriching the medical field and the global health care system with his experience. Under supervision of his respectful supervisors he is taking his first steps to his dream of a successful clinical researcher.

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