"Outcome of severe COVID in peripartum women"

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Introduction

Pregnant women appear to have a similar risk of contracting the SARS CoV2. However, the morbidity for obstetric patients is increased particularly for ethnic minorities, maternal age > 35years, associated co- morbidities and lower socio-economic groups [1].

SARS-CoV2 infection leads to an increased risk of preterm delivery, caesarean delivery, risk of stillbirth, and possible fetal growth restriction. Guidance recommends senior multidisciplinary involvement in decision making on how and when to deliver these parturients [2].

Aim Of the Study

*To survey the clinical course and outcomes of obstetric patients admitted with SARS CoV2 to our Intensive Care Unit from March 2020 to November 2021.

*To find the Incidence of thrombocytopenia in severe SARS CoV2 which can contraindicate regional anaesthesia.

Method

Following the registration of the audit with Hospital Trust, the electronic notes were retrospectively reviewed. A retrospective observational survey, looking at demographics, platelet count, mode of delivery, type of anesthetic including maternal and fetal outcome in all mothers needing admission to Intensive Care Unit in our Hospital.

Results

During the study period **13223** obstetric patients were admitted to hospital of which **201** were tested positive for SARS CoV2, ten among them were admitted to Intensive care unit. There was a significant increase in SARS CoV2 severity(needing ITU admission) after the unlocking of the "second wave"(1/8/2020) compared to none in the first wave. Three patients were from ethnic minorities and all were unvaccinated. One parturient was ventilated elsewhere on ITU before delivery and unfortunately had stillbirth. Out of the nine who delivered in our hospital, seven were admitted to ITU within 48 hours of C-section, one at 10 days, and one at 46 days postpartum. The decision to deliver was due to increasing respiratory distress in all patients except one who had resistant SVT. All patients required invasive ventilator support in ITU, five required proning, two needed tracheostomy and two died.

Age	Gestation	BMI	GA VS Spinal	Platelet Count	No. days ventilated	No. days in ITU	No. days in Hospital	Significant Events
27	28+4	27	GA	248	9	6	15	SVT, Delirium
38	31+4	40	GA	258	1	2	12	NIL
40	26	38	GA	303	53	57	70	Headache,Photophobia, Delirium,Tracheostomy
30	34+2	27	GA	298	1	4	10	NIL
36	28+6	26	GA	288	56	64	88	Tracheostomy
28	31+5	29	GA	189	2	6	14	NIL
35	40+2	43	Spinal	224	21	23	24	Died
20	36+6	31	Spinal	273	3	9	16	NIL
25	40+3	43	Spinal	231	15	15	17	Died
31	31+5	31	Spinal	240	8	8	12	NIL

Discussion

*Worsening maternal condition (respiratory distress ,not tolerating to lie supine etc.) was the deciding feature for a GA, not thrombocytopenia which can be associated with severe SARS CoV2 infection[4].

*All of our patients were admitted to ITU after delivery except one who was ITU transfer from another hospital, who was ventilated for 17 days and had to be delivered due to stillbirth. She was ventilated for a total of 53 days.

*From our study if a person is ventilated for 10 or more days, morbidity and mortality is very high. Out of our 4 patients who were ventilated for more than 10 days two people died and two had to stay about 2 months in ITU to wean off ventilation.

*50% mortality for mothers ventilated for 10 or more days in ITU which is a extremely Poor prognostic factor

*The SARS CoV2 infection was 1.5% of all maternity admissions and mortality due to it was 0.99%.

1.Khalil A, Kalafat E, Benlioglo C et al. SARS-CoV-2 infection in pregnancy: A systematic review and meta-analysis of clinical features and pregnancy outcomes. E Clincal Med 2020;25,

2. Allotey J, Stallings E, Bonet M, Yap M, Chatterjee S, Kew T, et al. Clinical manifestations, risk factors, and maternal and perinatal outcomes of coronavirus disease 2019 in pregnancy: living systematic review and meta-analysis. BMJ 2020;370:m3320

3. Two cases of severe COVID-19 in gestational week 27 and 28 respectively, after which both pregnancies proceeded to term . H.ÖstlingaM.Ugarph-EdfeldtbK.Hildéna

4.Lippi G, Plebani M, Henry BM. Thrombocytopenia is associated with severe coronavirus disease 2019 (COVID-19) infections: a meta-analysis. Clin Chim Acta 2020;506:145–8