

# Early experience of novel corona virus

Gauri Dank<sup>1\*</sup>, Anuradha Palnitkar<sup>2</sup>, Vaishali khadke<sup>3</sup>, Jyotsna Kshirsagar<sup>4</sup>

<sup>1,2,3,4</sup>Consultants, Department of OBGY, Dr. Hedgewar Rugnalaya, Aurangabad, Maharashtra, INDIA.

Email: [sampark09@gmail.com](mailto:sampark09@gmail.com)

## Abstract

**Background:** SARS CoV-2 is a major public health concern. It is a dynamically changing situation. New modalities are being formulated for treating the obstetric population. We have attempted to innovate negative pressure hood and a protective shield for the protection of healthcare workers. **Methods:** It is a retrospective analysis of the cases presented during the onset of pandemic between May 2020 to July 2020. The case summaries were prepared from the hospital indoor case records. **Conclusion:** Positive and humanitarian approach towards patient is the need of hour. Adequate training session for the staff for donning and doffing and Cleaning protocols. Multidisciplinary management of delivered patients is the key for better outcome.

**Key Word:** CORONA, COVID-19.

## \*Address for Correspondence:

Dr Gauri Dank, Consultants, Department of OBGY, Dr. Hedgewar Rugnalaya, Aurangabad, Maharashtra, INDIA.

Email: [sampark09@gmail.com](mailto:sampark09@gmail.com)

Received Date: 05/03/2021 Revised Date: 14/04/2021 Accepted Date: 30/05/2021

DOI: <https://doi.org/10.26611/10121924>

This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/). 

## Access this article online

Quick Response Code:	Website: <a href="http://www.medpulse.in">www.medpulse.in</a>
	Accessed Date: 10 August 2021

## INTRODUCTION

SARS CoV-2 is a major public health concern. It is a dynamically changing situation as we come across many new cases in obstetric population and the protocols for management are being formulated. Emergence of a coronavirus which was not previously seen in human beings, was first reported in Wuhan, China, on Dec.31, 2019. It has attracted much interest throughout the world. Since then, the number of reported cases has increased rapidly, with 1,54,46,800 laboratory confirmed cases as of July 25,2020.<sup>1</sup> We take this opportunity to share our five cases delivered during May-July 2020 at Dr.Hedgewar Rugnalaya, Aurangabad, Maharashtra, India.

**Background:** Obstetric patients are particularly at a higher risk of infection considering the immunosuppression associated with pregnancy. The testing protocols, the treatment guidelines and obstetric management protocols

are getting updated as the number of reported cases and their outcomes are analysed. In the midst of a rapidly evolving outbreak, the unique needs of pregnant women should be included in preparedness and response plans.<sup>2</sup>

**General principles:** To begin with we rearranged the infrastructure. Areas for donning and doffing were defined. Training sessions were conducted for the doctors, residents, nursing staff and housekeeping staff. Cleaning protocols with deep surface cleaning were initiated after each delivery. As Aurangabad region is in red zone, all the obstetric patients who were getting admitted for delivery are tested for covid status using RT PCR swab. Patients are hospitalized and then swab is sent.

Report becomes available within 24 hours. Patients were admitted in isolation ward. All untested and suspected patients are delivered in a separate labour room designated for covid positive patients using PPE kits. Post delivery Baby's swab was sent on day 3. Breastfeeding was advised from our side taking due hygienic precautions.

## CASE NO. 1

25 years old Primi with full term pregnancy with severe oligoamnios with covid positive status was admitted at DHR on 22/5/2020. Labour was induced in view of severe oligo and nonreassuring NST. Patient was taken up for emergency LSCS in view of fetal distress. Patient was kept in isolation ward postoperatively. She remained asymptomatic for 2 days.

On day 3, she developed fever of 101F mild breathlessness. It was associated with tachycardia and SPO2 of 94%. She was shifted to COVID ICU and all relevant Covid profile investigation sent which included CBC, CRP, Procalcitonin, Ferritin, LDH and D-dimer and it was within normal limits. X-Ray Chest was suggestive of mild pneumonitis. She was monitored in ICU 24 hrs with high flow nasal oxygen and then shifted to ward subsequently. The treatment included TAB. HCQ 400mg BD for 5days and TAB AZEE 500mg OD for 5days. She was hospitalized for 10 days as per govt policy and then discharged with the advice of home isolation for 7 days.

### CASE NO. 2

31 Years old G2P1L1 with full term pregnancy came in active labour at around 2am. Labour progressed spontaneously and she delivered on 2/6/2020 at 4:57 AM. For patients who deliver in emergency hours, it is hospital's policy to send swab next day which came out to be positive.

The postpartum X-ray chest and COVID profile was normal for this patient. As ECG showed QT prolongation HCQ was withheld.

Immediate post partum course remained uneventful for this vaginally delivered patient. This is consistent with the current evidence of better outcome with vaginal delivery. Patient was discharged on 4/6/2020

### CASE NO. 3

38 Years old G2P1L1 with full term previous LSCS was admitted on 11/6/2020. Her RT-PCR was positive She underwent elective LSCS I/V/O Previous LSCS with CPD. Her chest X-ray done on 12/06/20 was normal. HRCT lung done on 14/06/20 showed thin septal thickening noted in subplueral locations of anterior segment of bilateral upper lobes.

Patient was given hydroxy chloroquine for 5 days and injectable steroid – solumedrol for 2 days.

Patient was kept hospitalized for 10 days and discharged on 20/6/2020

### CASE NO. 4

24 yr old G2P1L1 with full term pregnancy came in active labour on 29/Jun/2020 at 8:23pm. Labour progressed spontaneously and she delivered vaginally on 29/6/2020 at 9.55pm. Swab sent the next day was positive She remained asymptomatic postnatally and was kept in isolation ward for 10 days and then discharged. Received HCQ 400mg BD on day 1 followed by 200 mg BD for 5 days and azithromycin for 5 days

### CASE NO 5

24 years old G2P1L1 with 36weeks gestation came in pre labor on 15/7/2020 at 7.10a.m.Labour progressed

spontaneously and she delivered at 12.44pm . Her swab test report came the next day which was positive. She remained asymptomatic postnatally. She was given Inj DEXA 6mg IV OD for 5 days.Tab Azee 500mg OD for 5 days and Tab HCQ 200 mg BD for 5 days

### KEY ISSUES

1. Impact on the mindset of patients and accompanying relatives: Thorough predelivery and post partum counseling is needed to address various issues.
2. Costs involved, specially the cost of PPE kit to be beared by the patient in private set up.
3. As the the Government guidelines and policies get updated as per the emerging evidence , we need to keep ourselves updated about it.

### TECHNOLOGICAL ADVANCEMENTS USED

#### 1)Negative pressure bed hood :-

With the help of RandD Department of the hospital , a negative pressure bed hood was installed. The main advantage of this chamber being the exhaled CO2 of the patient is sucked through the central suction and oxygen is also supplied through the front curtain. This prevents airborne contaminants drifting from patient. It is provided with vacuum flowmeter to adjust the suction air flow.it is recommended to use/set at 15 liter/min .Oxygen supply arrangement is also provided.

Vacuum – 15-20 lit/min

Oxygen – 6-8 lit/min if required.

Dimensions – 915 width x 760 mm length x 915 mm height

Weight – 4.7 kg

Material used – Polyester film, stainless steel square pipe, Acrylic sheet ,flow meter.

#### Benefits -

This is a protective separation between patient and treating doctor/staff.

It keeps patient always at negative pressure, oxygenated.

A polyester film provides better vision for both.

The hood can be disinfected by spraying and cloth cover by dipping it in sodium hypochlorite solution for 30 min.

**2) Protective ventilated shield:** This is designed with the aim of reducing the discomfort of the operating surgeon and the suffocation associated with PPE kit. Every health worker is exposed to virus in the form of aerosol. This cap (shown in the image below) is designed to keep it pressurised with air. There is provision of supply of about maximum 15 litre per min flow of either compressed air or oxygen through the pipe as show in the image. The excess air along with exhaled air would move out from top and bottom cloth cover



Figure 1



Figure 2



Figure 3

### Benefits

This protective shield keeps face cool, oxygenated, virus free, frost free with better vision.

Since there is no chance of entry of outside air, surgical mask can also work.

The shield and cloth cover can be disinfected by dipping it in sodium hypochlorite solution for 30 min.

### TAKE HOME MESSAGE

Positive and humanitarian approach towards patient is the need of hour.

Adequate training session for the staff for donning and doffing and Cleaning protocols.

Multidisciplinary management of delivered patients is the key for better outcome.

### REFERENCES

1. COVID-19 Dashboard. <https://coronavirus.jhu.edu/map.html>. Accessed 25 July, 2020.
2. Rasmussen SA, Smulian JC, Lednicky JA, Wen TS, Jamieson DJ. Coronavirus Disease 2019 (COVID-19) and pregnancy: What obstetricians need to know. *Am J Obstet Gynecol.* 2020; 222: 415– 426.
3. Lam CM, Wong SF, Leung TN, et al. A case-controlled study comparing clinical course and outcomes of pregnant and non-pregnant women with severe acute respiratory syndrome. *BJOG.* 2004; 111: 771– 774.
4. Chen H, Guo J, Wang C, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records [published correction appears in *Lancet.* 2020 Mar 28;395(10229):1038] [published correction appears in *Lancet.* 2020 Mar 28;395(10229):1038]. *Lancet.* 2020; 395: 809– 815.
5. Guan WJ, Ni ZY, Hu Y, et al. Clinical characteristics of Coronavirus Disease 2019 in China. *N Engl J Med.* 2020; 382: 1708– 1720.

Source of Support: None Declared  
Conflict of Interest: None Declared