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Outcome of Covid-19 Infection in Pregnant Females

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Abstract
- ***AIM****- This article presents the analysis of current data in relation to COVID-19 in S.N Medical college and hospital, Jodhpur from January 2021 to June 2021 and its impact on pregnant women including symptoms and complication of disease.*
- ***METHOD****- Total 191 pregnant females were found COVID-19 positive in S.N Medical college and hospital, Jodhpur from January 2021 to June 2021. RT-PCR test of the nasopharyngeal swab is the diagnostic test.*
- ***RESULTS****-Pregnant females are at increased risk of severe infection and complication as compare to general population. Most common symptoms are fever, cough, respiratory distress, and myalgia. Pregnant females with COVID-19 positive have increased risk of preterm labor, IUGR , miscarriage, abruption and IUFD. Maternal mortalities are seen more during term .Total 16.75% of peripartumcovid -19 positive females expired. The long duration of hospital stay and separation from child or fetal demise also have an adverse mental impact on the pregnant female .*

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I. Introduction

- An atypical pneumonia was first reported in Wuhan city of China in December 2019. This was later named Covid -19 by WHO on feb 11, 2020. On March 12,2020 WHO declared this outbreak as a pandemic. It has now become a global health problem making the governments worried about their people and economy.
- Corona virus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus-2 (SARS-COV-2).
- Corona virus is an enveloped, non segmentedssrna virus. It is transmitted by droplets and airborne particles .It can cause respiratory infection which may vary from common cold to fatal disease. People may remain contagious for upto 20 days.
- Pregnant patients are more vulnerable to the infection due to physiological changes of immune and cardio pulmonary systems. There are few evidences suggesting higher case fatility rate and more severe complication with SARS-CoV and MERS-CoV during pregnancy(1,2)
- Total confirm cases of COVID-19 in INDIA in Year 2020 are 10,557,985 and confirm death due to COVID-19 are 149,436.(3,4)
- Total confirm cases of COVID-19 in INDIA in Year 2021 till june are 19,900,266 and confirm death due to COVID-19 are 2,50,876.

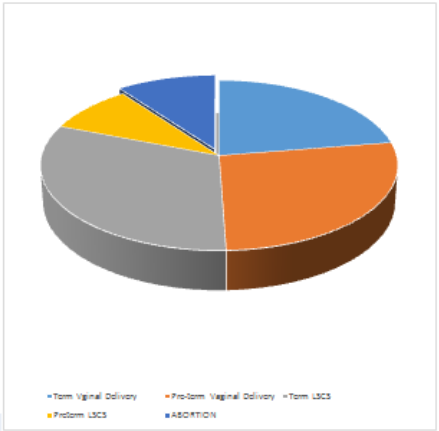
II. Methodology

This is the retrospective study done in COVID 19 positive pregnant women admitted in S.N. Medical College &Hospital ,Jodhpur from January, 2021 to june,2021.Diagnosis was made on basis of RT-PCR test of throat and nasal swab in patient who came with symptoms like fever, bodyache, dyspnea, anosmia etc. or had history of close contact with COVID-19 patients. Other investigations- HRCT chest, chest xray, CRP, serum ferritin, D-dimer,interleukin-6 were also done to know the status and prognosis of disease. Study done to analyse the outcome of pregnancy in COVID-19 positive women.

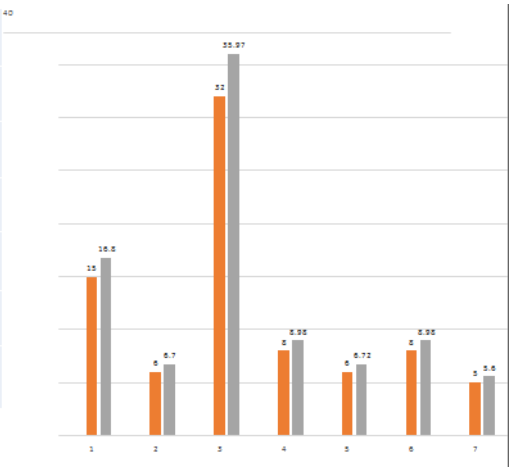
Clinical manifestation of COVID19in Pregnancy (5, 6,7)		
Sign/Symptoms	Laboratory Findings	Imaging
Cough (MC)	LeucocytosisLeucopenia	Groundglassappearance on chest xray
Fever	Decreased Lymphocytes	Bilateral/unilateral plural effusion
Dyspnea	Increased CRP	
Myalgia	Increased Ddimer	
Anosmia	Increased LDH	
Dysgusia	↑ IL-6[a]	
Vomitting		
Diarrhea		

TOTAL NO OF COVID -19 positive pregnant female Patient -191	
Undelivered	Delivered
102	89

S.N.	MODE OF DELIVERY	NUMBER
1.	Term Vaginal Delivery	20
2	Pre-term Vaginal Delivery	24
3.	Term LSCS	28
4.	Preterm LSCS	08



	Intra partum complication(in total delivered)		
			%
1.	IUD	15	16.8
2.	IUGR	6	6.7
3.	Preterm	32	35.97
4.	Fetal distress	8	8.98
5.	MSL	6	6.72
6.	Severe Oligohydromnios	8	8.98
7.	Abruptio Placentae	5	5.6



III. Discussion

The data available on the impact of COVID-19 on pregnant women is limited. Most of the pregnant women of COVID-19 are either asymptomatic or with mild symptoms. Most of the females presented with complaint of cough and fever. RT-PCR of nasal and throat sample was done to confirm the cases. Special care was given in females with pre-existing medical co-morbidities. Pregnant females have higher risk of preterm labour , IUGR , abruption , miscarriage. In this study out of total delivered 36% were delivered preterm and

10% had miscarriage. Females also have increased risk of intrauterine fetal demise that is 16.8% out of total delivered. Preterm LSCS was also increased due to increased rate of maternal and fetal distress. In LSCS two cases were of GDM, 3 of severe pre eclampsia and 2 of antepartum eclampsia.

Maternal mortality is also increased in these females and is found to be 32 out of 191; among them 1 female expired due to direct cause of PPH and 1 due to complications of antepartum eclampsia. Total 25% of undelivered females expired while 7.8% of delivered females expired due to COVID19 at S.N.Medical college, Jodhpur from January 2021 to June 2021; in them cause of death was due to bilateral pneumonitis.

IV. Conclusion

COVID-19 is a deadly infection and making it more dangerous in pregnant females probably due to immunosuppresion, decreased functional residual volume, increased oxygen consumption,etc. The drastic increase in cases were seen in april-may 2021 .Chest xray showed bilateral ground glass opacities, lung infilterates were more evident on CT chest. Several tests like D-dimer, IL-6,etc are done to know the prognosis of patient but no one is specific to the disease. There are increased maternal and fetal complications, increased ICU admissions, respiratory support requirements and hospital stay in these patients. There is increased rate of emergency LSCS , preterm deliveries, abortions and IUFD in these patients. More maternal deaths are seen near term. However no evidence of vertical transmission are there but new born cases and complications of COVID19 are seen. Breastmilk can be given to neonate as there is no evidence of transmission through breastmilk but isolation of positive mother from baby should be maintained.

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