Universal screening identifies asymptomatic carriers of SARS-CoV-2 among pregnant women in India

Rakesh Waghmare, Rahul Gajbhiye, Niraj Mahajan, Deepak Modi, Sanjay Mukherjee, Smita Mahale

PII: S0301-2115(20)30608-4
DOI: https://doi.org/10.1016/j.ejogrb.2020.09.030
Reference: EURO 11619

To appear in: European Journal of Obstetrics & Gynecology and Reproductive Biology

Received Date: 18 August 2020


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Title: Universal screening identifies asymptomatic carriers of SARS-CoV-2 among pregnant women in India

Authors: Rakesh Waghmare MD, DNB 1-2*, Rahul Gajbhiye MBBS PhD 3*, Niraj Mahajan MD4, Deepak Modi, PhD3, Sanjay Mukherjee MBBS, IAS 1#, Smita Mahale PhD3#

Affiliations:
1 Medical Education and Drugs Department, Government of Maharashtra, India
2 Department of Community Medicine, Grant Government Medical College and Sir J. J. Group of Hospitals, Mumbai, India
3 ICMR-National Institute for Research in Reproductive Health, Mumbai, India
4 Topiwala National Medical College & BYL Nair Charitable Hospital, Mumbai India

* These authors contributed equally

# Corresponding Authors
Dr Sanjay Mukherjee, IAS, Secretary, Medical Education and Drugs Department, Government of Maharashtra, India (psec.mededu@maharashtra.gov.in) &

Dr Smita Mahale, Director, ICMR- National Institute for Research in Reproductive Health, Mumbai, India (smitamahale@hotmail.com, dir@nirrh.res.in)

Study registration: PregCOVID registry is registered with Clinical Trial Registry of India (Registration no.: CTRI/2020/05/025423)
Dear Editor,

Asymptomatic women with coronavirus disease 2019 (COVID-19) are at risk of infecting their newborns and also pose a risk to healthcare providers and other patients [1] [2] [3]. Considering this, Indian Council of Medical Research (ICMR) recommended universal testing for SARS-CoV-2 in pregnant women [4]. Maharashtra is the worst-hit state in India and universal screening strategy for pregnant women was implemented in several public hospitals during this time. Herein, we report the outcome of implementation of this strategy.

Women presenting in labour or likely to deliver in next 5 days were screened for SARS-CoV-2 as per ICMR guidelines [4]. Data from 25th April to 20th May, 2020 was collected from 15 participating hospitals of PregCovid registry network (https://pregcovid.com/). In all, 141/1140 pregnant women were tested positive for SARS-CoV-2 resulting in a prevalence of 12.3% (Mean 9.4, 95% CI 6.6 – 12.1) in Maharashtra, India [Figure 1A]. The prevalence of SARS-CoV-2 infection in women varied (0-40%) across the different hospitals in the state. For estimation of numbers of symptomatic and asymptomatic SARS-CoV-2 positive pregnant women, the data of 141 women was pooled with data from Topiwala National Medical College (TNMC) & BYL Nair Hospital TNMC Mumbai (n=180) which exclusively caters COVID-19 patients (n=180). Of the 321 SARS-CoV-2 positive women only 37 (range 0-17%) women were symptomatic (Fig 1B). The prevalence of symptomatic pregnant women is 11.5 % (Mean 6.8, 95% CI 2.4-11.2) while that of asymptomatic pregnant women is 88.5% (Mean 79.8, 95% CI 75.7- 83.9) [Figure 1B]. The proportion of symptomatic to asymptomatic individuals varied greatly across the different cities (not shown). Our results estimate presence of one symptomatic to every nine asymptomatic pregnant women. This is in concordance to the number proposed based on mathematical calculations and some observational data [5].
This data on undocumented or “steady state” infections in pregnant women is useful for ensuring safe obstetric and neonatal services and assessing the burden of COVID-19 in the region to plan strategies on strengthening or relaxing mass social distancing measures. We strongly recommend that the strategy of universal testing of pregnant women admitted for delivery is essential and must be implemented rigorously not just to protect the women and their newborns; but also, the healthcare workers and curb spread of the infection in the community.

Declaration of interests

All authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Disclosure statement: All authors report no conflict of interest.

Acknowledgments:

The support of the PregCOVID registry network (Appendix 1) is gratefully acknowledged. PregCovid registry is funded by intramural grant of ICMR-NIRRH (RA/924/06-2020).
Appendix 1.
Participants of PregCovid Registry Network as on 18.08.2020
1. Dr Niraj Mahajan, Associate Professor and COVID-19 Maternity Nodal Officer, Topiwala National Medical College and BYL Nair Charitable Hospital, Mumbai
2. Dr Ramesh Bhosale, Professor and Head, Department of Obstetrics & Gynecology, Byramjee Jeejeebhoy Medical College Pune
3. Dr Shrinivas Gaddappa, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Aurangabad
4. Dr. Vidya Tirankar, Professor and Head, Department of Obstetrics & Gynecology, Dr Vaishampayan Memorial Government Medical College, Solapur
5. Dr Ashok Anand, Professor and Head, Department of Obstetrics & Gynecology, Grant Medical College and J J Group of Hospitals, Mumbai
Dr Tushar Palve, Medical Superintendent, Cama And Albless Hospital, Mumbai
6. Dr M.R.Waikar, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Nagpur
7. Dr. Sarika Wankhede, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Chandrapur
8. Dr Jyoti Rokade, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Miraj
9. Dr. Arun Morey, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Dhule
10. Dr Prashant Uikey, Professor and Head, Department of Obstetrics & Gynecology, Indira Gandhi Government Medical College, Nagpur
11. Dr. S R. Wakode, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Nanded
12. Dr. Mangal Shinde, Professor and Head, Department of Obstetrics & Gynecology, Vilasrao Deshmukh Government Institute of Medical Sciences, Latur
13. Dr. Jitendra Deshmukh, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Gondia
14. Dr. Shirish Shanbhag, Professor and Head, Department of Obstetrics & Gynecology, Rajarshi Chhatrapati Shah Mahal Government Medical College, Kolhapur
15. Dr. Rohidas Chavan, Professor and Head, Department of Obstetrics & Gynecology Vasantrao Naik Government Medical College, Yavatmal
16. Dr Shyamkumar Sirsam, Professor and Head, Department of Obstetrics & Gynecology Government Medical College, Akola
17. Dr. Sanjay Bansode, Professor and Head, Department of Obstetrics & Gynecology Government Medical College, Jalgaon
18. Dr Swati Kagne, Associate Professor, Department of Obstetrics & Gynecology Government Medical College, Ambejogai
19. Dr Uma Wankhede, Professor and Head, Department of Obstetrics & Gynecology, Government Medical College, Baramati
References:


Figure Legend

Fig 1: SARS-CoV-2 test results among pregnant women and their symptomatic status. A) Pregnant women (n=1140) were screened for SARS-CoV-2 as per the national guidelines and the proportion of positive women are given. B) Percentage of symptomatic and asymptomatic cases in women tested positive for SARS-CoV-2 (n=321). The data in B is a pool of data in Fig A and 180 additional patients from a hospital caring to only COVID-19 pregnant women.