



Clinical presentation, maternal and neonatal outcomes in pregnancies affected by Corona virus disease 2019 (Covid 19) and a comparison between the two waves in southern India

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Introduction: Covid infection in pregnant women runs a more serious course than in non-pregnant population^{1,2}. India witnessed high rates of infection in waves. This multicentric study shows worse outcomes in the second wave which is similar to other recent studies in India³.

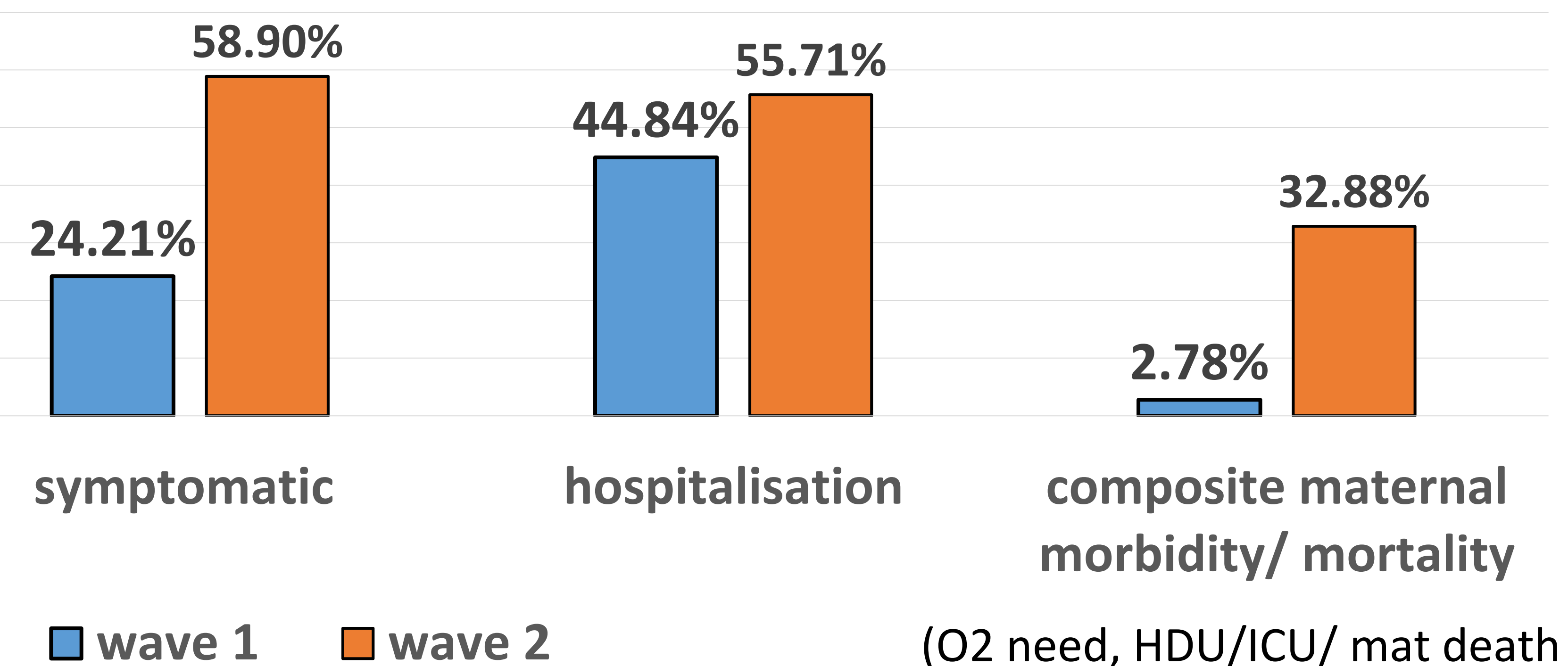
Objectives: To determine the clinical manifestations, risk factors, and maternal and neonatal outcomes in pregnant women with confirmed coronavirus disease and to compare these variables between the first wave and the second wave.

Methods: This was a retrospective study of pregnant women with confirmed covid-19 infection who delivered from May 2020 to Dec 2021 in six hospitals in South India. Those who tested positive by RT-PCR were grouped into two cohorts, the first wave (April to September 2020) and the second wave (March to September 2021). Demographic details, maternal characteristics, severity of covid, obstetric and neonatal outcomes were noted from the medical records and these were compared between the two waves. Incidence of the maternal complications will be summarised as proportions. RR for outcome was calculated using a binary regression model.

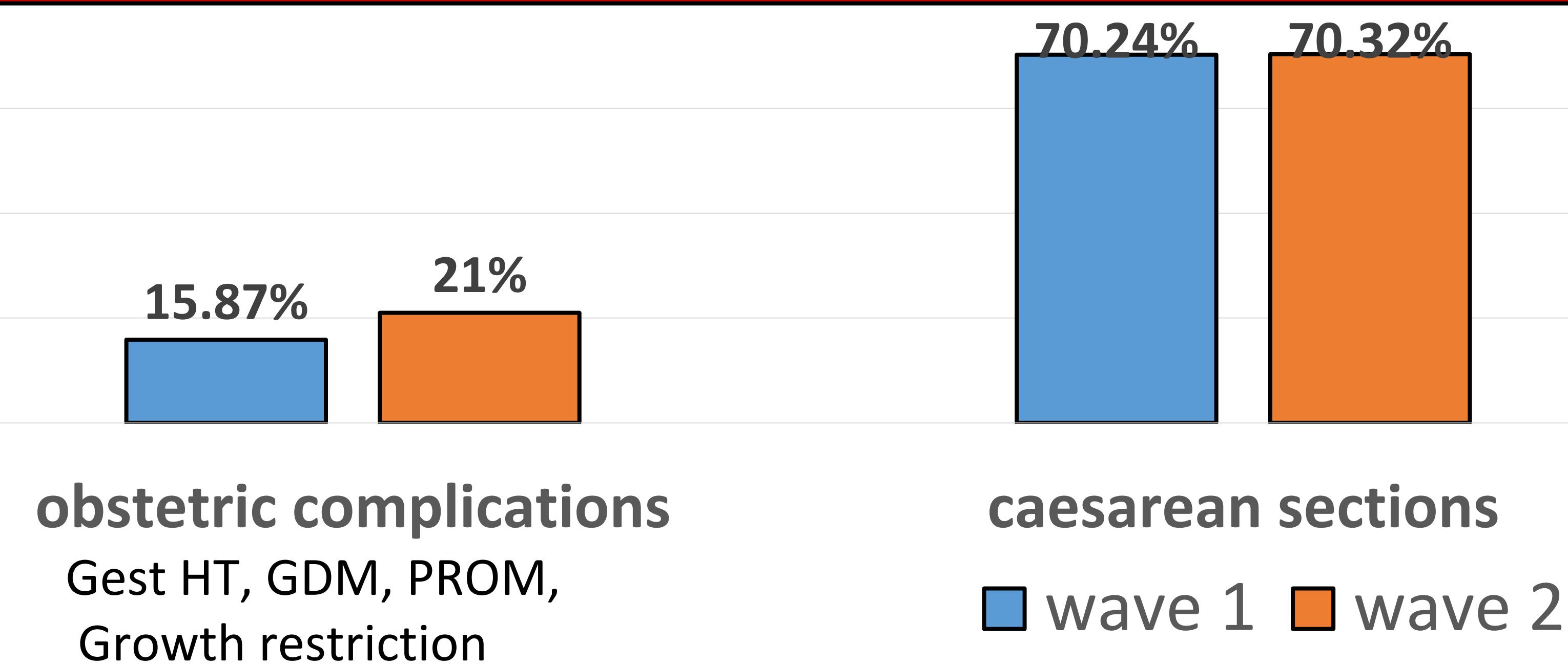
Results: A total of 471 pregnancies with covid-19 infection were analysed. The median age was 28 and the median BMI was 25. 54.58% were primipara, comparable in both waves.

	All cases	Wave 1	Wave 2	P value
Number	471	252 (54%)	219 (46%)	
Obese	47.17%	43.8%	51.26	0.053
Comorbidities	21.82%	20.72%	23.67	0.25

Severity of covid



Obstetric outcomes



Neonatal outcomes

	Live births	Preterm	<2.5kg	Nicu adm	NND(no)
Wave 1	99.6	10.12	8.33	5.76	0
Wave 2	98.17%	11.01	13.70	6.93	3

Risk factors associated with maternal morbidity/mortality

	Risk ratio	95% CI
Age above 30 yrs	0.8	0.4-1.4
Multiparity	0.8	0.5-1.2
BMI>25	2.1	0.8-5.0
Medical comorbidities	1.5	0.9-2.3
Obst complications	0.8	0.4-1.2
Symptomatic covid	2.7	1.7-4.2

Conclusion and significance: Covid in pregnancy is associated with more morbidity and mortality than in nonpregnant women reported elsewhere and was much worse in the second wave. This study finding underscores the importance of vaccination in reproductive age women. Due to small sample size, risk factors for adverse outcomes could not be ascertained.

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3. Singh V, et al. Maternal and Neonatal Outcome of Pregnant Women With SARS-CoV-2 Infection During the First and Second Wave of COVID-19 in a Tertiary Care Institute in Eastern India. Cureus 14(2)2022 e22360.