

Maternity services during COVID-19 Pandemic and lockdown at Provincial Public Hospital in Nepal

Murari Thakur

Provincial Hospital Janakpurdham, Province-2

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ABSTRACT

Aims: To assess the hospital delivery pattern during COVID 19 pandemics and lockdown.

Methods: This is a retrospective study conducted at Provincial Public Hospital Janakpurdham, Nepal from April to July 2020. Data were collected from hospital record and descriptive analysis performed using MS Excel.

Results: Total of 1536 women delivered in three month and caesarean section rate was 16.7% (257/1536). Previous caesarean section was the major contributor (46%) to the overall caesarean section rate.

Conclusions: Maternity services were provided during COVID 19 pandemics and Lockdown. Caesarean section rate was near the recommended level.

Keywords: Caesarean section, lockdown, pandemic, vaginal deliveries

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INTRODUCTION

Coronavirus disease 2019 (COVID-19) is a newly emerged disease which has become a global health emergency and there is no effective medicine or vaccine currently available for it.¹ World Health Organization (WHO) declared the COVID-19 outbreak as a pandemic on 11th March 2020.² Lockdown is considered to be an effective measure in slowing the spread of coronavirus around the globe.³ Government of Nepal declared first phase of nationwide lockdown from 24th March to 21st July 2020.^{4,5} COVID-19 pandemic has led to economic and social stress coupled with restricted movement and social isolation measures, ultimately resulting in limited institutional capacity and services.⁶

According to WHO, there are concerns over its impact on women and girls, with vulnerabilities feared to worsen as the pandemic overwhelms health systems. Women are disproportionately affected by lockdowns and this is resulting in a reduced access to health services.⁷ This pandemic crisis has significantly transformed the working environment,

resulting in high-pressure work, and unfavorable and demanding interactions among frontline health workers.⁸ In one in five countries (20%) the main reason for discontinuing services was a shortage of medicines, diagnostics and other technologies.⁹ It has an effect even in the small health service centers including public hospitals. Therefore this study was conducted to assess the maternity service delivery pattern during this crisis.

METHODS

This was a retrospective descriptive study done at Provincial Hospital Janakpurdham for 3 months from April 2020 to July 2020 during lockdown period of COVID pandemic. All pregnant women at or more than 22 weeks gestation and asymptomatic or PCR negative for COVID 19 admitted for delivery at this hospital were included in the study. Demographic and obstetric profile of parturient was entered and descriptive parameters analyzed in MS Excel. Ethical approval obtained from national ethic board.

CORRESPONDENCE

Dr Murari Thakur

Department of Obstetrics and Gynecology

Provincial Hospital Janakpurdham, Dhanusa, Province-2, Nepal

Email: murarithakur45@gmail.com; Mobile: +977-

9866047639/9849042616

RESULTS

Total hospital deliveries were 1536 in 3 months and all of them were asymptomatic for COVID-19. Out of 1536, half of participants (50.1%) belonged to age group 20-24 years and majority (39.1%) was from the same district Dhanusa and neighboring districts; and most of them were literate.[Table-1]

Table-1: Demographic profile of women admitted for delivery during lockdown (N=1536)

Variables		Number (%)
Age group	≤19	180 (11.7%)
	20-24	770 (50.13%)
	25-29	490 (31.9%)
	30-34	66 (4.2%)
	≥35	30 (1.9%)
Address	Dhanusa	610 (39.7%)
	Mahottari	512 (33.3%)
	Sarlahi	350 (22.7%)
	Siraha	45 (2.9%)
	Sindhuli	19 (1.23%)
Education	Literate	1229 (80%)
	Illiterate	307 (20%)

1279 (83.2%) had vaginal delivery while 257(16.7%) underwent cesarean section. Majority undergoing cesarean section were multiparous (61.4%) and >37 weeks of gestation (98%). Table-2.

Table-2: Demographic and Obstetric Profile of women undergoing caesarean section (N=257)

Variables		Number (%)
Age group	≤19	30 (11.6%)
	20-24	130 (50.5%)
	25-29	80 (31.1%)
	30-34	12 (4.7%)
	≥35	5 (2%)
Parity	Nulliparous	88 (34.2%)
	Multiparous	158 (61.4%)
Period of gestation	<37 weeks	3 (1.2%)
	≥37 weeks	254 (98.8%)

The common indication of cesarean section was past cesarean delivery (46%) followed by fetal distress (25%). [Figure-2]

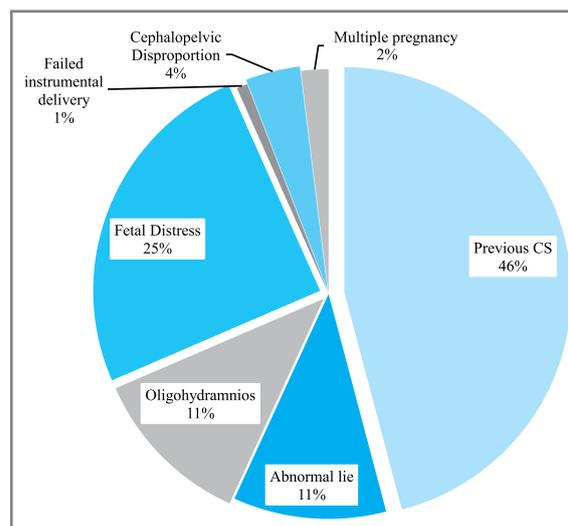


Figure-2: Indication for Cesarean section (N=257)

DISCUSSION

This study included 1536 participants who delivered in Provincial hospital in during three months period. Lockdown due to COVID 19 pandemics during this period might have affected the incidence of cases. Overall CS rate was 16.7 % at this hospital during this period which is still near the recommended rate as stated by WHO (10-15%) and but at lower end (9%) at Karnali Academy of health sciences (KAHS).^{10,11} However, CS rate at this hospital is lower than most of other public and private hospital in Nepal.¹⁰

In this study multiparous women represented the largest group representing which is similar to the finding of Barcaite et al¹² where majority of participant were multiparous with single cephalic term pregnancy admitted in spontaneous labor.

In this study previous cs (46 %) was the major contributor in overall CS rate. This finding is similar to the finding of Reddy AY et al¹³ where most CS (18.6%) was done for Previous CS. Whereas, Malla RV et al¹⁴ and Poudel R et al¹⁵ had different finding where majority of the CS belonged to nulliparous. This disparity could be the result of various factors like rising maternal age at first pregnancy, technological advances that have improved the safety of the procedure, changes in women's preferences, increasingly sedentary lifestyle and poor tolerance to pain.^{12,15}

CONCLUSIONS

Maternity services were continued during COVID 19 pandemics and lockdown. Caesarean section rate at

Provincial Hospital Janakpurdhm is comparatively lower than other hospitals even during pandemic period.

REFERENCES

1. Paudel S, Dungal G, Chalise A, Bhandari TR, Dungal O. The Coronavirus Pandemic: What Does the Evidence Show?. *J Nepal Health Res Counc.* 2020;18(1):1-9. <http://www.jnhrc.com.np/index.php/jnhrc/article/view/2596>
2. WHO Director-General's opening remarks at the media briefing on COVID-19. World Health Organization; 2020 March 11.
3. Barkur G, Vibha GB. Sentiment analysis of nationwide lockdown due to COVID 19 outbreak: Evidence from India. *Asian J Psychiat.* 2020;51:102089. DOI: <https://doi.org/10.1016/j.ajp.2020.102089> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7152888/>
4. Pradhan TR. Nepal goes under lockdown for a week starting 6am Tuesday [Internet]. Kathmandu. 2020 March 23. Available from: <https://kathmandupost.com/national/2020/03/23/nepal-goes-under-lockdown-for-a-week-starting-6am-tuesday>
5. Nepal Ends COVID-19 lockdown [Internet]. 2020 July 21. Available from: <https://www.nepalitimes.com/latest/nepal-ends-covid-19-lockdown/>
6. Peña-López. The impact of COVID-19 on women. The impact of COVID 19 on women. United Nations; 2020 Apr 9. 21 p. Available from: <https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2020/policy-brief-the-impact-of-covid-19-on-women-en.pdf?la=en&vs=1406>
7. WHO concerned over COVID-19 impact on women, girls in Africa. WHO Africa. 2020 June 18. <https://www.afro.who.int/news/who-concerned-over-covid-19-impact-women-girls-africa>
8. Poudel K, Subedi P. Impact of COVID-19 pandemic on socioeconomic and mental health aspects in Nepal. *Int J Social Psychiat.* 2020;66(8):748-55.
9. COVID-19 significantly impacts health services for noncommunicable diseases. WHO news. 2020 June 1. <https://www.who.int/news-room/detail/01-06-2020-covid-19-significantly-impacts-health-services-for-noncommunicable-diseases#>
10. Laxmi T, Goma D, Kumariniraula H, Roshnitu T, Binod A. Rising Cesarean Section Rates in Nepal: Question of safety and Integrity on Obstetric Emergency Practice. *J Gynecol Women's Health.* 2017;7(4):555716. <https://juniperpublishers.com/jgwh/pdf/JGWH.MS.ID.555716.pdf>
11. Betran AP, Torloni MR, Zhang J, Ye J, Mikolajczyk R, Denoux-Tharaux C, et al. What is the optimal rate of caesarean section at population level? A systematic review of ecologic studies. *Reprod Health.* 2015;12(1):57. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4496821/>
12. Barčaitė E, Kemeklienė G, Railaitė DR, Bartusevičius A, Maleckienė L, Nadišauskienė R. Cesarean section rates in Lithuania using Robson ten group classification system. *Medicina.* 2015 ;51(5):280-5. <https://sci-ub.tw/https://doi.org/10.1016/j.medic.2015.09.001>
13. Reddy AY, Dalal A, Khursheed R. Robson ten group classification system for analysis of cesarean sections in an Indian hospital. *Res J Obstet Gynecol.* 2018;11:1-8. <https://scialert.net/abstract/?doi=rjog.2018.1.8>
14. Malla RV, Hamal C, Neupane B, Khatri R. Analysis of Cesarean Section Using Robson's 10-Group Classification at a Tertiary Level Hospital in Nepal. *Med J Shree Birendra Hosp.* 2018;17(2):4-11. <https://sci-hub.tw/https://doi.org/10.3126/mjsbh.v17i2.20290>
15. Poudel R, Dungal G, Karki A, Pradhan HK, Shrestha R, Bhattachan K, et al. Assessment of Cesarean Section Rates at Kathmandu Model Hospital Using the Robson's Ten Group Classification System. *J Nepal Health Res Counc.* 2019;17(4):491-4. [file:///F:/Downloads/756-Article%20Text-995-1-10-20200217%20\(2\).pdf](file:///F:/Downloads/756-Article%20Text-995-1-10-20200217%20(2).pdf)
16. Bragg F, Cromwell DA, Edozien LC, Gurol-Urganci I, Mahmood TA, Templeton A, et al. Variation in rates of caesarean section among English NHS trusts after accounting for maternal and clinical risk: cross sectional study. *BMJ.* 2010;341:c5065. <https://sci-hub.tw/10.1136/bmj.c5065>