# **Obstétrique - Divers**

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# The impact of COVID-19 booster vaccination in the current pregnancy during the Omicron waves on maternal and perinatal outcomes

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#### Position du problème et objectif(s) de l'étude:

Pregnant women are not more susceptible to SARS-CoV-2 infection, but they may face a more serious COVID-19, because of their unique physiological and immunological status. Nowadays, vaccination against COVID-19 is very common and has shown its safety and efficiency against the virus. The aim of this study is to investigate the impact of COVID-19 booster vaccination received during the current pregnancy on maternal and perinatal outcomes.

#### Matériel et méthodes:

after obtaining informed consent of parturients, an observational multicenter study was carried in out at four level 2 or level 3 maternity hospitals in southern Tunisia from the 15th of November 2021 to the 15th of October 2022. In this period, two waves of COVID-19 occurred in our country, andthe Omicron variantwas the dominant variant. Pregnant women who gave birth while infected by SARS CoV2 during the Omicron waves were included. Patients were divided into 2 groups: the "booster vaccination" group included pregnant women who had completed vaccination and had received an additional dose of vaccine during pregnancy; the "non-booster vaccination" group included pregnant women who had completedprimary vaccination without booster shots. Data about obstetrical and neonatal outcomes in both groups were compared. Statistical analyses were performed using the SPSS 23.0 (SPSS, Chicago, IL, USA) statistical package. Continuous variables were presented as means value ±standard deviation

## Résultats & Discussion:

In total, 59 patients were included: 41 received booster shots during the current pregnancy, and 18 did not. Asymptomatic forms were seen in 58.5% of the "booster vaccination" group versus 16.6% of the "non-boosted vaccination" group with p=0.003. The need for cesarean delivery was reduced from 72.2% to 41.4% with p=0.028. The length of hospitalization was reduced from  $4.67 \pm 4$  days in the "non-boosted vaccination" group to  $1.98 \pm 0.93$  days in the booster vaccination group with p=0.001. The booster vaccination allowed reduced rates of prematurity with p=0.011 and neonatal intensive care admissions with p=0.007..

# **Conclusion:**

The COVID-19 booster vaccination seems to be beneficial during the Omicron waves. It improved obstetrical and neonatal outcomes. So, pregnant women could be advised to get a booster dose of the COVID-19 vaccine when they get pregnant.

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