

## INTRODUCTION

COVID-19 pandemic is considered a stressor event; yet, no study has described the course of stress at labor and delivery during this pandemic.

## OBJECTIVES

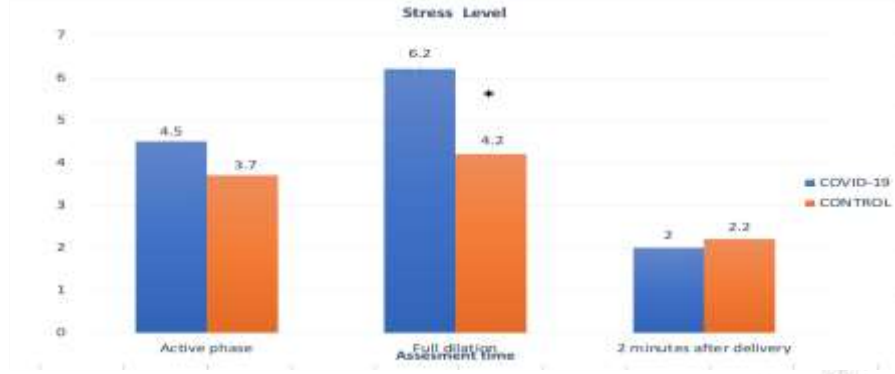
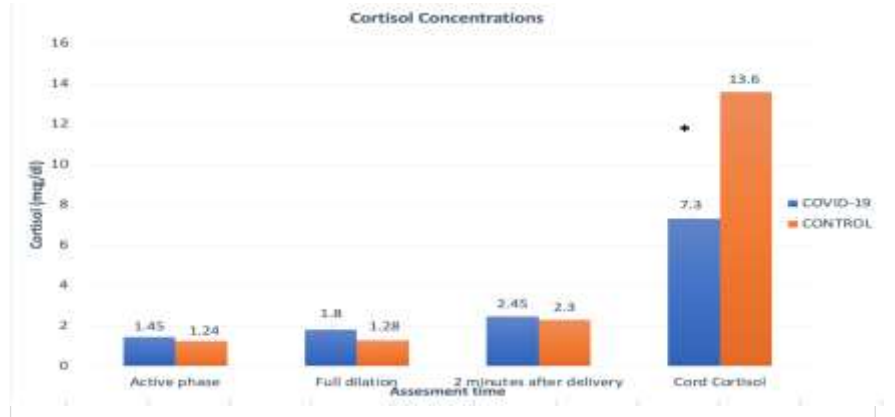
To evaluate stress levels measured objectively (saliva cortisol) and subjectively (questionnaires) during the COVID-19 pandemic compared to a period prior to the pandemic and its effect on obstetric and neonatal outcomes.

## METHOD

This prospective study included 36 women who delivered during COVID-19 pandemic and 49 women who delivered before. Physiological stress was evaluated by salivary cortisol measurements and emotional stress by questionnaire during the active phase, full dilation stages of labor and 2 minutes after delivery. Mode of delivery, obstetrical complications, and early neonatal outcomes were evaluated.

## RESULTS

Psychological stress was significantly higher for the COVID-19 group compared to the control during full dilation phase ( $p=0.009$ ). A higher level of cord blood cortisol was found in the control group ( $p=0.001$ ). No difference was found between the groups regarding cortisol level in the saliva at each assessment time.



## CONCLUSIONS

Women delivered during COVID-19 pandemic have higher stress level expressed in psychologic questionnaires and in lower cord blood cortisol levels that might reflect an exposure to a chronic stressor event.

