

Abstract

This bachelor thesis is studying the influence of maternal stress on premature birth. Premature birth is a very serious perinatal complication, the incidence of which remains consistent, although health care is constantly improving. In the Czech Republic, the incidence of premature birth is around 8 %.

The work has theoretical and practical part. The theoretical part of the thesis is focused on preterm birth, what are its causes, how it can be prevented, what is the diagnosis and management of premature birth. Last but not least the thesis discusses stress as a risk factor for preterm birth.

In 2020, a pandemic of COVID-19 hit the world. In March 2020, the first cases appeared in the Czech Republic. A completely new and extraordinary situation has brought many changes and limitations in everyday life of the society, and thus caused an excessive level of stress in the population. Therefore, in the practical part, we focus on the impact of the COVID-19 pandemic on pregnancy and premature births.

The aim of the work was to find out whether this new stressful situation affected the frequency of premature births at the Department of Obstetrics and Gynaecology of the First Faculty of Medicine and General Teaching Hospital in Prague.

We have also studied whether the frequency of premature births has changed at the certain age of pregnancy, and if the frequency of Caesarean sections increased amongst term and preterm deliveries due to pandemic.

We compared the data from 2020 with years 2019 and 2018 to keep results as objective as possible. Data were obtained from the Department of Obstetrics and Gynaecology of the First Faculty of Medicine and General Teaching Hospital in Prague.

We found out that the COVID-19 pandemic did not affect preterm births and their frequency did not change significantly. There was no increase or significant decrease in premature births, the frequency of preterm birth in certain age of pregnancy also did not change. There was a minimal increase in frequency of Caesareans sections, but this increase was not statistically significant. It will be necessary to monitor the situation also in 2021, when the stress from pandemic in Czech Republic reached the top and was the most serious for longer time.

Keywords: premature birth, stress, high-risk pregnancy, pandemic, COVID-19