

Impact of Covid 19 Vaccine on the Menstrual Cycle of Women of All Ages

Mehwish Ateeq* and Sadia Aslam

Dr Sulaiman Al Habib Hospital, Riyadh, KSA

***Corresponding Author:** Mehwish Ateeq, Department of Obstetrics and Gynecology, Dr Sulaiman Al Habib, Maternity Hospital, Riyadh, KSA.

Received: May 27, 2022; **Published:** June 30, 2022

Abstract

Menstrual cyclicity is a clear sign of health and fertility in a women. Women's menstrual cycle varies from month to month over a small period of time. Menstruating women may also experience changes in the cycle due to stress, sleep cycle, anxiety, hormonal issues or certain diseases. The aim of this study was to determine the impact of Covid 19 vaccine on the menstrual cycle of women of all ages. The study utilized an online self-administered survey from February 2022 to April 2022 targeting females above the age of menarche who had received the vaccine. The survey was distributed to all via social media. The questionnaire included all relevant questions, like age, marital status, contraception being used or not and the type of contraception, which vaccines was administered and when was the vaccination taken, if the cycles were regular or irregular before the jab and if they had any sort of stress or medical disorders like PCO, Thyroid disorders, endometriosis etc. that could also affect the menstrual cycle. Our study showed that Covid 19 had an impact on the menstrual cycle to some extent. Some women had prolonged cycles, a few reported heavy bleeding, severe dysmenorrhea, a couple of females had regular cycles but with increased frequency and a small number of them had regular with decreased flow.

Keywords: *Menstrual Cycle; Covid 19 Vaccine*

Introduction

Menstrual cyclicity is a clear sign of health and fertility in a women. Women's menstrual cycle varies from month to month over a small period of time. Menstruating women may also experience changes in the cycle due to stress, sleep cycle, anxiety, hormonal issues or certain diseases [1]. However, after exposure to the covid 19 vaccine, the complain of irregular menstrual cycles in ob. gyne clinics and social media have significantly increased.

Menstrual cycle timing is controlled by the hypothalamus in the brain, which causes the nearby pituitary gland to produce chemicals that enables ovaries to produce the sex hormones estrogen and progesterone [2]. Changes in the body such as vaccines and infections can cause disruptions in hormone signals [3,4].

Menstrual cycle length is not the same for every woman. Periods flow might occur every 21 to 35 days and last two to seven days. For the first few years after menstruation begins, long cycles are common. However, menstrual cycles tend to shorten and become more regular with age [5].

Menstrual cycle can be regular and of the same length every month or it can be irregular for some. Periods flow can be heavy or light, with or without dysmenorrhea. It's not the same for every woman. Within a board range, normal is what's normal for an individual according to her body. The use of certain types of contraception, such as birth control pills or IUCD, can affect the menstrual cycle. Similarly, pregnancy, breast feeding, PCO'S, eating disorders, weight loss, premature ovarian failure, excessive weight loss, fibroids, infections and many other conditions do have an impact on the menstrual cycle regularity [5,6].

Objective of the Study

To observe how COVID 19 vaccination impacted menstrual cycle, we prepared a questionnaire with certain relevant questions and circulated among all the populations.

Method/Study Design

The study utilized an online self-administered survey from February 2022 to April 2022 targeting females above the age of menarche who had received the vaccine. The survey was distributed to all via social media.

Data processing and analysis

Data was analyzed using SPSS package in the form of percentages (relative frequencies) of variables. Chi square test was used to evaluate the significance. A P valve of less than 0.05 was considered statistically significant.

Results

In our study, we have noted that vaccination appears to change period symptoms for some women:

- 34.1% women had menstrual irregularity after taking the covid 19 vaccine
- 28.6% had regular periods with decreased flow
- 20.3% had regular periods with increased frequency
- 16.2% had severe dysmenorrhea after taking vaccine
- 13.9% bled between periods
- 11.7% had heavy menstrual bleeding
- 9.4% had prolonged cycles.

However, further study will be needed to continue to monitor if these changes in menstrual cycle are temporary or permanent.

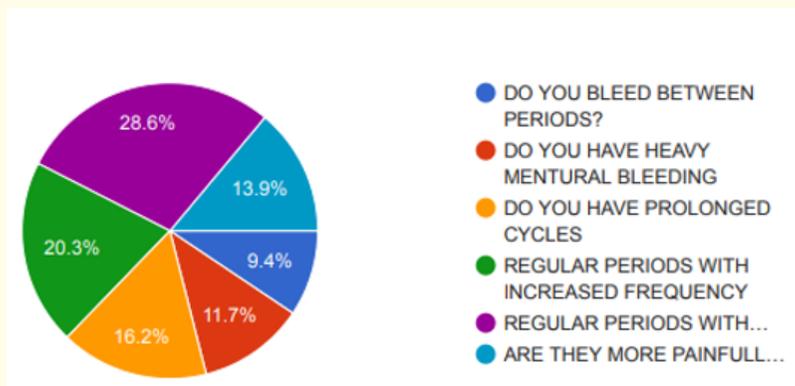


Figure 1

Discussion and Conclusion

349 females filled the online survey. 84% of these females were married and 63% were Asians, 21% Arabs, and the rest were Africans and Caucasians. Majority of them were in the reproductive age group (25 = 34 years) and most of the changes were seen in this age group.

The vast majority 60% females were disease free. however, hypertension, thyroid disorders and PCO were present in 7%, 11% and 14% of the participants respectively. 83% were not using any contraceptive methods. 9% had IUCD's and 8% were using birth control pills.

About 34% women reported changes in menstrual cycle after the covid 19 vaccine. Approximately 11% had heavier bleeding than before taking the vaccine, 9% had prolonged cycles, 16% had more painful periods than before and around 14% bled between periods. 49% continued to have regular periods but out of them around 29% had complain of decreased flow and 20% had increased frequency.

60% of the females had regular cycles before taking the jab. Around 65% of the women with menstrual irregularities took the Pfizer vaccine, 3 - 6 months before our survey.

The study, however found that the covid 19 vaccine, esp. Pfizer vaccine, did somehow had an impact on the menstrual cycle of females of reproductive age group. Further study is needed to see if these changes are temporary or long lasting.

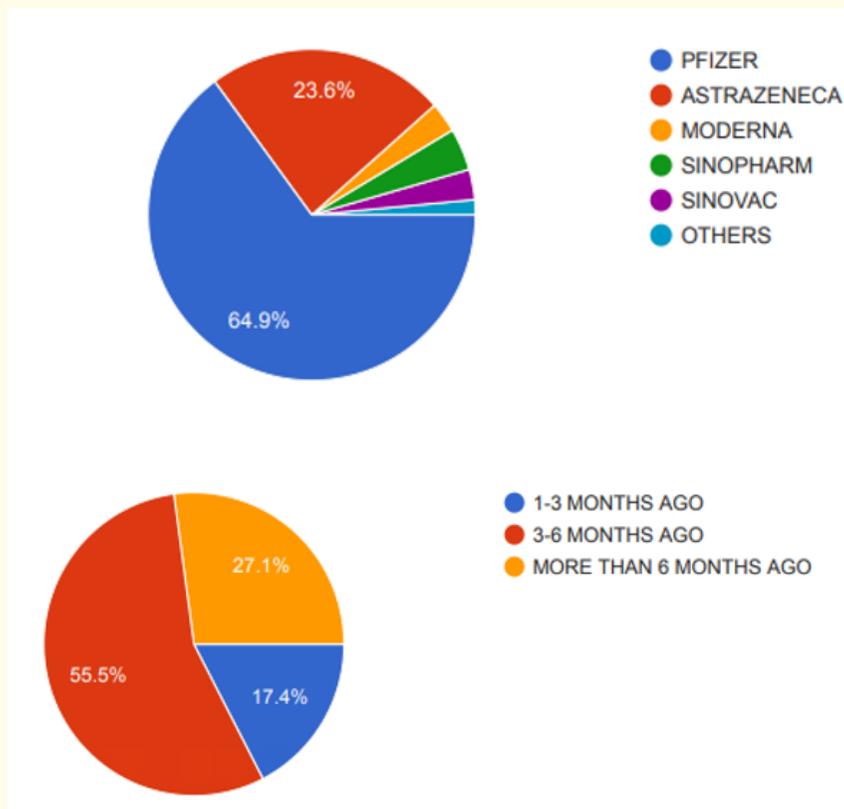


Figure 2

Conflicts of Interest

The authors have no conflicts of interest to declare.

Acknowledgements

The authors thank all staff for participation in the study. The research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Bibliography

1. <https://www.everydayhealth.com/coronavirus/does-covid-19-wreak-havoc-with-the-menstrual-cycle/>
2. https://en.wikipedia.org/wiki/Menstrual_cycle
3. Richards JS. "The ovarian cycle". *Vitamins and Hormones* 107 (2018): 1-25.
4. Cleveland Clinic. Will a COVID-19 vaccine throw your period off?.
5. <https://www.mayoclinic.org/healthy-lifestyle/womens-health/in-depth/menstrual-cycle/art-20047186>
6. <https://my.clevelandclinic.org/health/articles/10132-normal-menstruation>

Volume 11 Issue 7 July 2022

© All rights reserved by Mehwish Ateeq and Sadia Aslam.