**Background :**

Numerous women worldwide have reported problems with their menstrual periods after receiving COVID-19 vaccines. The purpose of this study is to determine the effect of covid-19 vaccine in menstrual irregularities among female residents of North Indian region.

**Objectives :**

 To study and find the adverse effect of COVID-19 vaccine on menstrual cycle.

 To study complications in women during menstrual cycle after COVID-19 vaccination.

 To study and analyze different changes occurred in menstrual cycle after COVID-19 vaccination.

**Methods :**

An online self-administered survey was used From MAY 2022 – JUNE 2022 to collect data from women over the age of menarche who had received a vaccine, were breastfeeding (4.3%), pregnant (1.9%), menopausal (0.6%), regular (90.7%), premenopausal (2.5%), and had a history of disease like fibroids(0.6%), early menopause (1.2%) and Polycystic ovarian disease (11.8%). Regional distribution of the study using social media.

**Results :**

We examined 161 females with an average age of 23.76 ± 6.155 years. Result showed that 40.4% of them (n=65) suffered from a changes in no. of days between two consecutive periods as well as found a change in the amount of blood loss. Also, 55.3% (N=89) of them experienced that COVID-19 infection may cause changes in the amount of blood loss during the cycle. People who filled this questionnaire, (p<0.001) experienced that COVID-19 vaccine has tendency to change the menstrual cycle pattern.

Menstrual symptoms were reported by approx 57.6% of those who received the vaccine, with 39.8% experiencing them after their first dose. The type of vaccine had no effect on the incidents of abnormalities (p>0.05).

However, abnormalities were detected (p<0.001). People who identified the covid-19 infection and who had symptoms but were never diagnosed (11.8% and 36.6% respectively). The survey also revealed the prevalence of mild, moderate, and severe COVID-19 symptoms (49.7%, 13.0%, and 35.4% respectively).

**Conclusion :**

The study suggested a significant connection between the COVID-19 vaccination and menstrual irregularities that have adversely affected the quality of life