

Alterations of immunoglobulin G levels in the breast milk of mothers with exclusive breastfeeding compared to mothers with non-exclusive breastfeeding during 6 months postpartum during the Pandemic Covid 19 in the West Bank

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Background: Human breast milk is unique and a natural source of nutrition. However, it also helps to protect against various types of disease, not only infective but also immunological diseases. Breast milk protects not only during the neonatal period but also beyond it. By educating the neonatal immune system it also protects against the development of diseases later in life. IgG antibodies play important roles to protect infants in early life Aim to study the effects of breast milk feeding versus formula feeding in early infancy on the development of serum IgG during pandemic.

Objectives: The purpose of this study was to measure changes in the concentration of immunoglobulin G (IgG) in the mature breast milk of Palestinian mothers during the first 6 months after giving birth between exclusively breastfeeding (EBF) mothers and non-exclusively breastfeeding (nonEBF) mothers and knowing the effect of infection with Corona virus on the concentration of IgG of breastfeeding mothers

Methods: An experimental randomization design was used to measure changes in the concentration of IgG in the mothers mature milk during the first 6 months after giving birth using ELIZA technique. 41 mothers were recruited in this study distributed in two groups nonEBF and, EBF, 50% of each group have got infected with corona viruses.

Results: There was a significant difference in IgG concentrations between EBF and non-EBF mothers. IgG was higher in the EBF mothers milk than in the milk of non-EBF mothers at P-value =0.000. Coronavirus infection does not affect IgG production in breastfeeding mothers.

Conclusion: The concentration of IgG changes in human breast milk along with breastfeeding intervals. EBF enhances the concentration of IgG in breast milk compared to non-EBF. The results of this study can be used in health education programs to convince pregnant women or postpartum women to use EBF for 6 months after giving birth.

Keyword: Breast feeding Breast milk Exclusive breastfeeding Corona virus IgG