

Breastfeeding and COVID-19 in Malaysia: Weighing the Risks and Benefits.

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INTRODUCTION

Breastmilk is known to be the best source of nutrition for infants. Malaysia adopts the policy by the World Health Organization (WHO) which recommends exclusive breastfeeding for the first six months followed by a combination of nutritious complementary foods and to continue breastfeeding for two years or beyond.¹ Numerous effort has been done to support, promote, and protect breastfeeding at all levels of implementation to increase the rate of breastfeeding.

The novel coronavirus disease, also known as COVID-19 that emerged at the end of 2019 was declared a global pandemic by the WHO on March 11, 2020.² This pandemic has imposed a significant effect on the world's population. Person to person transfer via close contact with an infected person and exposed to coughing, sneezing and respiratory droplets has been confirmed by cases worldwide.³ Globally, many countries have imposed lockdown measures in an effort of reducing the transmission of this new disease. Similarly, Malaysia has entered the fourth phase of the Movement Control Order (MCO) which started on 18th March 2020.

Fear of transmission of COVID-19 from mother to infant while breastfeeding may lead to a reduction in this practice despite its known benefits. In this pandemic, the main priority is public health interventions in controlling the outbreak. New guidelines are needed in this specific group of

population in minimising the spread of this disease. Thus, this article aims to weigh the risk and benefit of breastfeeding practice during the COVID-19 pandemic by comparing relevant pieces of evidence.

Benefits of breastfeeding and breast milk content

Breastfeeding is good for both mother and infant. There is no doubt about the significant advantages of breastfeeding on health, society, and family economics. Other than giving the ideal nutrition to the infant, the main advantage of breastfeeding is in providing immune protection and prevent various diseases in the perinatal period. Human breast milk contains numerous protective factors against infectious disease and may influence immune system development.

The main protective factor in breast milk is secretory immunoglobulin A (IgA) antibodies which are lacking in newborn infants but is present at very high concentration in the colostrum (10g/L) and in mature milk (1g/L).^{4,5} When an antigenic material is breathed in or ingested by a mother, the secretory immune system responds rapidly via the entero-broncho-mammary link of IgA+ B lymphocytes and mucosal immune system. M cells of Peyer's patches in the gut-associated lymphoid tissue (GALT) or tracheobronchial tree mucosa (BALT) activates the entero-mammary or broncho-mammary pathway to provide effective protection to the infant by producing targeted secretory IgA in the breast milk.⁵ This specific secretory IgA will bind to the pathogen and prevent infection. The transfer of this highly specific protection from a mother to her infant via breastfeeding provides additional support for the immature immune system of the infant.

The other major host defense factors in colostrum and breast milk are IgM, IgG, lactoferrin, lysozyme, complement proteins, bifidus factor, and cellular

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