



Early weaning as a cause of cow's milk protein allergy: a review

O desmame precoce como causa da alergia à proteína do leite de vaca: uma revisão

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INTRODUCTION

During the first months of life, breast milk is the main nutritional and immunological source, favoring the physical and cognitive development of the newborn (NB) (BRASIL, 2015). Early weaning consists of the interruption and insertion of other foods into the child's diet before 6 months. Even though it is beneficial, exclusive breastfeeding (EBF) is still a distant reality in many families. Given this, weaning can generate consequences for the baby, one of them being food allergies, which are immune-mediated reactions, generating inflammatory clinical responses, triggered by the intake of certain foods (BURNS et al., 2017). Cow's milk protein allergy (CMPA) is the most common and early food allergy of childhood, especially in children under 3 years of age (ZEPEDA-ORTEGA et al., 2021), due to milk proteins being the first food antigens introduced into the diet of newborns.

METHODOLOGY

This is a literature review on early weaning and its relationship with cow's milk protein allergy. Electronic sources such as the Scielo, LILACS and Google Scholar databases were used. The articles were selected in the language Portuguese that were related to the objective of the research. The descriptors used were "early weaning", "cow's milk protein allergy" and "food allergy". Being selected 9 references, with the inclusion criteria of publications between 2009 and 2021, compatible with the theme, full texts and available for free. As exclusion criteria, articles with publication below the year 2009 and works that did not meet these criteria or even repeated in other databases.

Breastfeeding provides protection against a variety of diseases, including long-term protection. Reducing the risk of allergies, including CMPA, atopic dermatitis and other types of allergies, asthma and recurrent wheezing. However, such effects are only achieved with the exclusivity of breastfeeding in the first six months (BRASIL, 2015). Numerous causes are associated with early weaning. Among these, the



growing participation of women in the labor market, the emergence of milk formulas, low level of education, inadequate breastfeeding technique and nipple infections. This early interruption leads to a lower absorption of the protective factors present in human milk (BRASIL, 2015; BATISTA *et al.*, 2009).

It is found that human milk is a food with hypoallergenic characteristics. Its composition includes trophic factors, antibodies, anti-inflammatory and immunomodulatory properties that favor the development of the immune barrier of the intestinal mucosa and provides the maturation of enterocytes, which consolidates the protection and tolerance of the infant against food allergies (BATISTA *et al.*, 2009).

In view of the studies evaluated, it is concluded that one of the main risk factors of CMPA is weaning and early ingestion of the cow's milk, because the infant in this period has not yet developed its immune mechanisms being more exposed due to the high intestinal permeability. Then, when the early consumption of cow's milk occurs, the body of the NB is more susceptible to the development of hypersensitivity reactions (GUIMARÃES *et al.*, 2021). In this scenario, it was found that the NB has a gastrointestinal immaturity, so the mucosa of the tract is more susceptible to the absorption of allergenic molecules, such as milk proteins. In parallel, it is more subject to the development of hypersensitivity reactions due to deficient IgA production and absence of tolerance mechanisms (BATISTA *et al.*, 2009; BURNS *et al.*, 2017).

CONCLUSION/FINAL CONSIDERATIONS

SMA promotes the maturation of the gastrointestinal tract and develops the immune barrier of the mucosa. However, early weaning and food introduction before 6 months of life of the infant are still very prevalent, which brings harm to the development of the child, especially the incidence of food allergies such as CMPA.

In view of the present study, the harmful evidence of early weaning associated with a higher incidence of CMPA and other allergies is confirmed. Thus, the correct orientations to those responsible for the child regarding the importance of EBF up to 6 months of life are paramount, as well as the introduction of food at the correct time and in an appropriate way.

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