



THE USE OF METOCLOPRAMIDE IN THE INCREASE OF BREAST MILK PRODUCTION IN THE NORTHERN BRASIL REGION

**Thaila Baptista
Leitão**

Fonoaudióloga Especialista em Disfagia pelo Conselho Federal de Fonoaudiologia (Brazil)

ABSTRACT

The breastfeeding is the ideal food for healthy growth and development of newborns, but some difficulties are encountered in this process leading to early weaning. The aim of the study was to reflect on the use of metoclopramide to increase the production of breast milk in women from the north region. A literature review was conducted through the search of scientific articles in the database of the Virtual Health Library (Lilacs and Scielo), in Portuguese and English languages from 1990 to 2018 and application of questionnaire for sample selection. The main results were early weaning, difficulties in the production of breast milk, and a high rate of use of drugs for various purposes to increase milk production. It is concluded that in the Northern Region of Brazil there is a significant number of women who use metoclopramide or other medication to increase the production of breast milk, even though there is no proven evidence of their interference in the increase in milk production.

KEYWORDS : Breast Feeding, metoclopramide, Lactation Disorders, weaning

INTRODUCTION

The World Health Organization (WHO) and the Brazilian health ministry (Ministério da Saúde – MS), advocate the breastfeeding for two years or more, being exclusive on the first six months of life. (MS, 2013)

According to Lima et al (2018), the breast milk is the main food source for kids, there are the main nutrients for the health protection of the children against infections, diarrhea, respiratory illnesses, allergies and other diseases. Though, many reasons interfere for the failure of that process and, consequently, the early weaning.

Among the reasons that can contribute for the early weaning, the hypogalactia is pointed as the major determinant.

The hypogalactia is the decrease of milk secretion, real or supposed, usually caused by maternal problems, eating disorders and mainly by mistakes on the breastfeeding technique or suction defect (RICCO, 1995).

In the clinical practice is usual to notice the use of drugs that assists in initiation and maintenance of the adequate milk production, they are called galactagogues. Among that drugs, is common to notice

There is no evidence that the drug stimulates the milk production in women with high levels of prolactin or with a breast tissue that is inadequate to lactation. Thus, by understanding the mechanism of action of the drug based on existing analyses, this research aims to check the presence of evidences that it may contribute for the increase of milk production, as well as, the adverse reactions that may be caused by it.

MATERIAL AND METHOD

In this research a systematic literature review was conducted focusing on the use of metoclopramide for increasing the breast milk production, researching papers published in the 90's that are available in the data base of the Virtual Health Library - VHL (Lilacs and Scielo), beside papers that are referenced at those publications, using the descriptors: breastfeeding, metoclopramide, lactation disorder, early weaning. Documents of the WHO/MS from Ministério da Saúde, technical books, thesis and scientific magazines were also consulted.

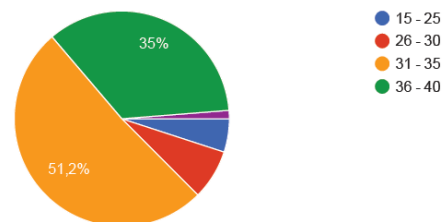
The sample includes 80 women of fertile age, living in Brazil northern region who had kids and breastfed.

For the data gathering was applied an online survey composed by 10 questions where the two first questions act as the base for the sample characterization.

The results were analyzed and organized in circle graphics showing the results related to the statistical base of the research.

RESULTS AND DISCUSSION

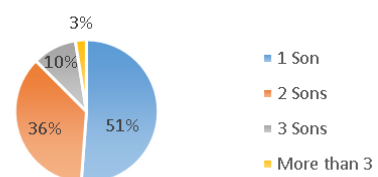
The first questions were related with the identification of the population on the research, as age and quantity of sons, according with graphics below.



Graphic 1- Age of the Participants

It was noticed that from the amount of 80 women, the majority had between 31 and 35 years old. (graphic1).

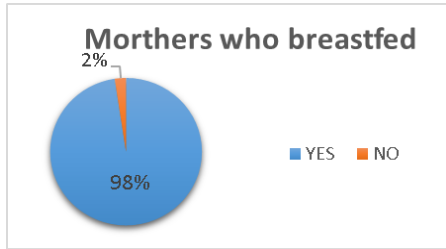
Quantity of sons



Graphic 2- Quantity of sons of the participants in the research

The graphic 2 show the quantity of sons of the participants in the research. Evidencing that the majority (51,2%) has only one child, 36,3% have 2 children, 10% have 3 children, confirming what is referenced by the literature, that since the late 60's started a quick and general process of drop in fertility rate, which in 2000 achieved similar rates as seen in developed countries (Caramano, Medeiros, 1999)

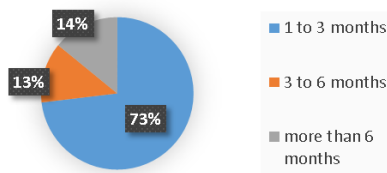
The Continuous National Household Sample Survey (Pnad) done by the Brazilian Institute of Geography and Statistics (IBGE), show that in 2003 the average of sons per family in Brazil was 1,78. In 2013, that number changed to 1,59.



Graphic 3 – Mothers who breastfed

The graphic 3 shows the percentage of the mothers who breastfed, being perceptible that the majority did breastfed their sons (97,5%) and only 2,5% did not.

Period of Breastfeeding

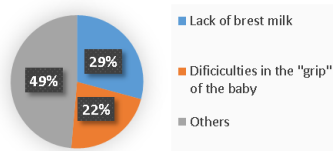


Graphic 4 – Period that the research participants breastfed

The graphic 4 indicates that the majority of mothers breastfed their sons longer than 6 months (73,1%) in accordance with the guidance given by MS and WHO which advice the exclusive breastfeed until 6 months of live and the permanence of it until 2 years old, as it is the strategy that singly prevents death of children younger than 5 years old (BRASIL, 2007).

On a report done by MS, the estimated average period of breastfeeding was 341,6 days (11, 2 months) on the whole Brazilians capitals, with the northern region having the longest estimative of length of that practice (434,8 days – 14,3 months) (MS, 2001)

Difficulties found in breastfeeding

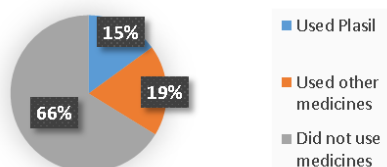


Graphic 5 – Difficulties found in breastfeeding

The graphic 5 proves that more than half of the mothers who participated in the research complain about problems with hypogalactia (lack of breastmilk) and difficulties with the "grip", confirming the discoveries in other studies. In their studies, after analyzing the causes for early weaning, Araújo et al (2008), found those difficulties as the main reason.

Faleiro et al (2006) point out as relevant the problems related to "lack of breastmilk", "weak milk", mammary issues and the baby's refusal to breastfeed.

Strategies used to produce breast milk



Graphic 6 – Strategies used to produce breastmilk

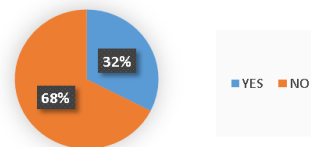
On the graphic 6 is possible to notice that even though the majority population of the research did not used any medicines to produce breastmilk, the quantity of mothers who did use medicine is considerable.

Anderson and Valdés (2007) reviewed the papers that wanted to determine the efficiency of galactagogues based on the increase of milk amount or in the average benefits for the infants. In the end they notice that most of papers about galactagogues was not guided by Evidence-based medicine (EBM).

About the metoclopramide's galactagogues effects, they were described by the first time in 1975, being proved in 1979 by Guzman's researches.

Among the drugs with galactagogues proprieties, the metoclopramide has been one of the most studied, but according to Chaves (2008), there is no basis in the modern principles of the Evidence-based medicine (EBM).medicine.

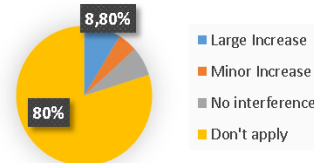
Used natural products to produce breast milk



Graphic 7 – The usage of teas and natural products to produce breastmilk

The graphic 7 revels that most mothers did not use any tea or natural products to produce breastmilk, even so, an significant number used some artifice in order to increase the production of breastmilk, supporting the studies from Ichisato and Shimo (2011) who consider the breastfeed not only as a biological, historical, social and psychological matter, affirming that the culture, faith and taboos affect crucially the breastfeeding

Effects of Metoclopramide

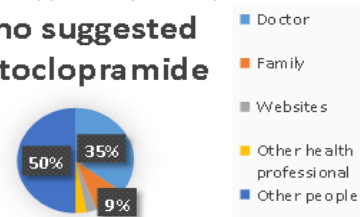


Graphic 8 – Effects on breastfeeding with metoclopramide

With the graphic 8 is noticeable that among the users of metoclopramide 8,8% expressed a large increase on the breastmilk production, 3,8% expressed a minor increase and 7,5% did not expressed any interference on the production.

In the literature is possible to notice that after all researches about metoclopramide, it is still necessary more studies based on evidences to prove that relation. The study of Kauppila et al (1995) refers this medicine as a powerful stimulator to produce prolactin, because it promotes the production of breast milk by inhibiting the dopamine, which suppress the prolactin production.

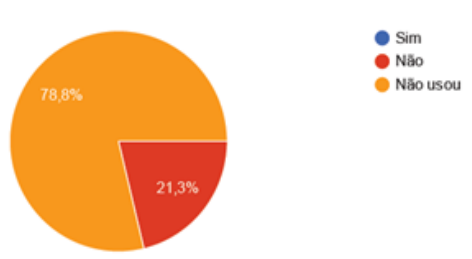
Who suggested metoclopramide



Graphic 9 – Who suggested the metoclopramide usage to increase the breastmilk production

Looking at the graphic 9 is possible to confirmed that 50% had the indication to use metoclopramide given by the general population and 35,3% had medical indication. These data show how important are the studies that measure the pharmacodynamic of that component to be possible to evaluate if there is a relation with the increase of prolactin and if the benefits are greater than the possible collateral effects.

Silvia and Pinheiro (2013) ratify that the consumption without information and the usage of medicines without doctor's prescription or pharmaceutical orientation reveal bad cultural habits from our society and reinforce that the Brazilian population, in general, has little knowledge about the usage of medicines



Graphic 10 – Collateral effects of the Metoclopramide

The graphic 10 points that the mothers who used metoclopramide did not expressed collateral effects related to the medication, but the product directions show various reactions as changes in the nervous system, psychiatric disorders, gastrointestinal, lymphatic, endocrine, cardiac and vascular. The directions contraindicate the usage by lactating women [Remedy bull].

According to the remedy bull, the Metoclopramide is excreted by the breastmilk and the side effects cannot be neglected. The mother must choose between interrupt the breastfeeding or abstain the metoclopramide treatment during the breastfeeding. This medication must not be used during the lactation [Remedy bull]

CONCLUSIONS

The research showed that even though the majority of mothers have breastfed their children for more than 6 months, a significative quantity ended the breastfeeding before the 6 months.

Another important fact is that many mothers reported difficulties in the breastmilk production and many of them used metoclopramide, other medicine or a homemade recipe trying to solve that problem.

Facing the results of this research and reviewing the bibliography used, it is concluded that is needed more researchers which deepen the relations of medications by the Evidence-based medicine. It is suggested to future studies to include a bigger quantity of samples. The indicators on this research may be used as predictive to future studies.

REFERENCES:

- [1] Ministério da Saúde. (2013). Dez passos para uma alimentação saudável: guia alimentar para crianças menores de dois anos. Um guia para o profissional da saúde na atenção básica.
- [2] Lima, A. P. C., da Silva Nascimento, D., & Martins, M. M. F. (2018). A prática do aleitamento materno e os fatores que levam ao desmame precoce: uma revisão integrativa. *Journal of Health & Biological Sciences*, 6(2), 189-196.
- [3] Dias de Araújo, O., Cunha, A. L. D., Rocha Lustosa, L., Sampaio Nery, I., Magalhães Mendonça, R. D. C., & Araújo Campelo, S. M. D. (2008). Aleitamento materno: fatores que levam ao desmame precoce. *Revista Brasileira de Enfermagem*, 61(4).
- [4] RICCO, R. G. Aleitamento natural. In: WOISK, J. R. *Nutrição e dietética em pediatria*. 4. ed. São Paulo: Atheneu, 1995. cap. 6, p. 65-88.
- [5] CAMARANO, A. A. (1999). organizador. *Muito além dos 60: os novos idosos brasileiros*. Rio de Janeiro: IPEA, 369-82.
- [6] Instituto Brasileiro de Geografia, Estatística. *Coordenação de Trabalho, & Rendimento*. (2013). *Pesquisa nacional por amostra de domicílios: Síntese de Indicadores-2014*. IBGE.
- [7] BRASIL. Ministério da Saúde. *Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Área Técnica de Saúde da Mulher. Pré-natal e Puerpério: atenção qualificada e humanizada*. Brasília: Ministério da Saúde; 2006.

- [8] Ministério da Saúde, & Ministério da Saúde. (2001). *Prevalência de aleitamento materno nas capitais brasileiras e no Distrito Federal*.
- [9] Dias de Araújo, O., Cunha, A. L. D., Rocha Lustosa, L., Sampaio Nery, I., Magalhães Mendonça, R. D. C., & Araújo Campelo, S. M. D. (2008). Aleitamento materno: fatores que levam ao desmame precoce. *Revista Brasileira de Enfermagem*, 61(4).
- [10] Faleiros, F.T.V., Trezza, E. M. C., & Carandina, L. (2006). Aleitamento materno: fatores de influência na sua decisão e duração. *Revista de Nutrição*, 623-630.
- [11] Anderson PO, Valdés V. A critical review of pharmaceutical galactagogues. *Breastfeeding Med*. 2007; 2:229-42.
- [12] Guzman V, Toscano G, Canales ES, Zarat A. Improvement of defective lactation by using oral metoclopramide. *Acta Obstet Gynecol Scand*. 1979; 58:53-5.
- [13] Chaves, R. G., Lamounier, J. A., Santiago, L. B., & Vieira, G. O. (2008). Uso de galactagogos na prática clínica para o manejo do aleitamento materno.
- [14] Ichisato, S. M. T., & Shimo, A. K. K. (2001). Aleitamento materno e as crenças alimentares. *Revista Latino-Americana de Enfermagem*, 9(5), 70-76.
- [15] Kauppila A, Anunti P, Kivinen S, Koivisto M, Ruokonen A. Metoclopramide and breast feeding: efficacy and anterior pituitary responses of the mother and the child. *Eur J Obstet Gynecol Reprod Biol* 1985 January; 19(1):19-22.
- [16] da Silva, M. L. M., & Pinheiro, P. C. (2013). *A Educação Química e o Problema da Automedicação: Relato de Sala de Aula*.
- [17] Metoclopramida: oral. Responsável técnico Cristiano de Souza Dias. Pouso Alegre: Cimed industria de medicamento LTDA, 2018 [bula de remédio]