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IRON DEFICIENCY ANEMIA IN CHILDREN AGED 0 TO 5 YEARS: A NARRATIVE REVIEW OF THE LITERATURE

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ABSTRACT

Objective: To analyze iron deficiency anemia in children aged 0 to 5 years. Literature Review: Anemia is defined by the World Health Organization (WHO) as a condition in which the hemoglobin content in the blood is below normal as a result of a lack of one or more essential nutrients, whatever the cause, with iron deficiency being the most common. Iron deficiency in children is among the most prevalent food deficiencies in the world, being an alarming situation for public health, also known to be the cause of iron deficiency anemia (FA). The deficiency of these micronutrients causes a deficit in child growth and development. Iron's main functions in the body are the transport of oxygen to the cells, in addition to participating in the enzymatic systems of various tissues. Final considerations: It is noteworthy that the high causal potential of iron deficiency anemia in the population, especially in the child population, can thus compromise child development markedly and inhumanely. In addition, it is seen that numerous ways of prevention, control and treatment are necessary to prevent children from suffering from these conditions.

Keywords: Iron deficiency anemia. Children. Child development.

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INTRODUCTION

Anemia is defined by the World Health Organization (WHO) as a condition in which the hemoglobin content in the blood is below normal as a result of a lack of one or more essential nutrients, whatever the cause, with iron deficiency being the most common. It is estimated-that 47.4% of children under 5 years of age have anemia in the world, behaving-as a cosmopolitan endemic; and in the American continent 23.1 million preschool children are anemic (OLIVEIRA et al., 2014).

Iron deficiency in children is among the most prevalent food deficiencies in the world, being an alarming situation for public health, also known to be the cause of iron deficiency anemia (FA). The deficiency of these micronutrients causes a deficit in child growth and development. Iron's main functions in the body are the transport of oxygen to the cells, in addition to participating in the enzymatic systems of various tissues. When it is low, it acts to lead to mental, cognitive and physical development, in addition to reducing resistance to infections (SILVA et al., 2015).

Iron deficiency anemia, as it is commonly known, is defined as a pathological process in which the concentration of hemoglobin contained in red blood cells is-abnormally low, and iron deficiency is commonly reported in childhood, especially in children up to 5 years of age, when accelerated growth requires a greater amount of this nutrient, thus impairing growth or reducing productivity at work. thus contributing to the decline in the individual's general performance capacity (LOPES et al., 2019).

LITERATURE REVIEW

More than 65% of the body's iron-is found in hemoglobin, whose main function is the transport of oxygen and carbon dioxide. In haemoglobin, a divalent iron atom is-found in the centre of the tetrapyrrolic nucleus (protoporphyrin IX), forming-the heme nucleus. Iron, therefore, is indispensable in the formation of hemoglobin (AMARANTE et al., 2015).

Iron is found in several foods, both of animal origin (meats of all kinds, milk and eggs), and vegetable (dark green vegetables, beans, soybeans, among others). However, what needs to be evidenced is the body's ability to take advantage of this iron offered to perform its most diverse functions, which determines its availability (LOPES et al., 2019).

In general, anemia-occurs as a result of blood loss or prolonged deficiency of dietary iron intake, especially in periods of greater demand, such as children and adolescents who have a marked growth rate. In addition, pregnancy and lactation are also periods of greater iron demand. (SILVA et al., 2015).

Iron deficiency and iron deficiency anemia, due to their high prevalence, repercussions on growth and development, resistance to infections, and association with mortality in children under 2 years of age, are considered one of the main public health problems, being the most common nutritional deficiency worldwide (SANTIS et al., 2019)

For the diagnosis of iron deficiency anemia, it is important to consider the clinical signs of iron deficiency, including weakness, headache, irritability, restless legs syndrome, and varying degrees of fatigue and intolerance to exercise or pica (perverted appetite for clay or dirt, papers, starch). Conduct and perception and psychomotor disorders, attenuation or impediment of the bactericidal capacity of neutrophils, decrease in T lymphocytes may also occur. Decreased exercise performance, pallor of the face, palms of the hands and conjunctival and oral mucous membranes, wheezing, asthenia and pain in the lower limbs, brittle and rough nails and angular stomatitis (SCHRIER, 2014).

Patients with low ferritin and no anemia may have the same symptoms. Older people often have an insidious onset with symptoms related to the exacerbation of their underlying comorbidities (worsening angina, increased mental confusion, dyspnea). Some patients with iron deficiency, with or without the presence of anemia, may complain of tongue pain, decreased salivary flow with dry mouth, and atrophy of the lingual papillae and, occasionally, alopecia (MODOTTI et al, 2015)

Treatment can be pharmacological or non-pharmacological, according to the patient's clinical condition. As iron deficiency anemia is related to needy populations, non-pharmacological measures include poverty reduction, access to diversified diets, and improvement in public health programs, as well as food education, with the aim of promoting care and better feeding practices. Preventive treatment includes, primarily, ensuring the necessary nutritional supply of iron for the vulnerable population (MAHONEY, 2014).

Pharmacological treatment can be oral, parenteral and in severe cases by red blood cell transfusion. The choice of iron preparation will depend on the severity of the

disease and the patient's tolerance to oral iron, which, because it is effective and inexpensive, is considered the first line of treatment. However, there are indications for the parenteral use of iron today, whose preparations have become more effective and safer (SILVA et al., 2014).

The most suitable for iron replacement and oral administration. The iron supplements available are: iron aminochelate, ferrous salts, ferric salts, carbonyl iron and polymaltosado iron complex (ferripolymaltose). The best alternative available on the market is ferrous sulfate, as it has a low cost and high bioavailability in the body (FANTINI et al, 2016).

FINAL CONSIDERATIONS

It is noteworthy-that the high causal potential of iron deficiency anemia in the population, especially in the child population, can thus significantly compromise child development. In addition, it is seen that numerous ways of prevention, control and treatment are necessary to prevent children from suffering from these conditions. However, although all preventive forms are correctly complied with, it is not the only causal form, as it is a chronic public health problem in the population's access to adequate sanitary conditions, which strongly indicates a problem for the cause of this anemic condition.

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