

CONSIDERATIONS ON MALNUTRITION IN INFANTS

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Abstract

Introduction. Malnutrition in infants represents an important problem in the context of the parental diseases, because of the immediate and at distance consequences. The purpose was to detect the malnutrition in infants and to analyze the etiological, clinical and demographic aspects. Material and method. The casuistry was represented by the infants who were admitted in Pediatric Clinic from Oradea during 5 years: 2011-2015. It was evaluated the nutritional status by measurements: weight, length, anthropometric indices: weight index, nutritional index, body mass index, cranial, chest and abdominal circumference, which compared with charts. It was performed a rigorous anamnesis, complete clinical examination and biological investigations. Results. There were detected 101 infants with malnutrition. 60 cases had mild, 32 moderate and 9 severe forms. There were 55 girls and 46 boys. The predominance was in the first 3 months of life: 60%. The environment was rural in 60 patients and urban in 41 cases. The socio-economical conditions were low in 50 patients, moderate in 40 and high in 11 subjects. In majority of situations: 65, the etiology was represented by errors of feeding. 36 cases had associated pathology: prematurity, congenital malformations, gastroesophageal reflux, encephalopathies, food allergies, genetic disease. Conclusions. The evaluation of the nutritional status in infants is important for the prevention of the nutritional disturbances, morbidity and mortality which are consequential. The promotion of a correct feeding in infants, adaptation of the nutrition to the existing pathology represent an important requirement.

Key words: malnutrition, infants.

INTRODUCTION

Malnutrition is one of the most important deficiency disease in childhood. It is a chronic disorder of nutritional status, specific to the infants and toddlers, characterised by small weight for the age and in the situation with prolonged evolution, by small weight for height, determined by a caloric and/or proteic insufficiency. Severe malnutrition represents an immediate cause of death at 7% from the infants and causes, in association with other diseases, 58.2% from the deaths under 5 years of age in underdeveloped countries.

The objective of the study was to evaluate the nutritional status and to detect the malnutrition in infants who were hospitalized in Pediatric Clinic from Oradea in the span of 5 years: during 2011-2015, and to analyze by etiological, clinical and demographic aspects.

MATERIAL AND METHOD

The casuistry was represented by 10975 infants (age 0-1 years) who attended the Pediatric Clinic from Oradea during 2011-2015, whose

nutritional status was evaluated. For this purpose were measured weight, length, and anthropometric indices were used: weight index, nutritional index, body mass index, head, chest, and abdominal circumference; individual values of measurements were compared reference standard charts. In all the cases of malnutrition it was performed a rigorous anamnesis, complete clinical examination and paraclinical investigations. For all the cases were performed laboratory tests: total blood count, ionogram, proteinemia, liver and kidney functional tests, abdominal ultrasonography. For special situations were performed: thyroid hormones, sweat tests, genetic tests, radiological investigations, transfontanelar ultrasonography, multidisciplinary consults: cardiological, endocrinological, surgical, genetical, neurological consult. These investigations were performed for etiological evaluation, associated pathology, complications. The subjects diagnosed with malnutrition were analyzed from etiological, demographic, clinic, and biologic aspects.

RESULTS AND DISCUSSION

In the span of 5 years considered in our study there had been detected 101 cases of malnutrition in infants. In the majority of situations were mild forms of malnutrition: 60 patients; 32 infants had moderate malnutrition and in 9 situations was diagnosed a severe form of malnutrition.

Most frequent incidence was in the first 3 months of life: 60%, between 3-6 months 30%, 7% were diagnosed during 6-9 months and 3% during 9-12 months of life.

Analyzing distribution of the sex of the infants, most of them were girls: 55, and 46 boys. Distribution on the environment reveals that in majority of situations the provenience was rural (60) and 41 were from urban environments. The socio-economical conditions were low and the level of education of the parents was modest in 50 cases, moderate in 40 patients and in 11 cases was high.

The etiology was represented in majority of the subjects exclusive by the mistakes of feeding: inadequate intake, mistakes of diversification, inadequate formulas – 65 cases.

In 36 patients it had been noted associated pathology: prematurity, malabsorption syndromes, congenital malformations, neurological diseases, gastroesophageal reflux, food allergies (allergy at cow milk proteins), genetic disease: 3 cases with cystic fibrosis and 2 congenital hypothyroidism.

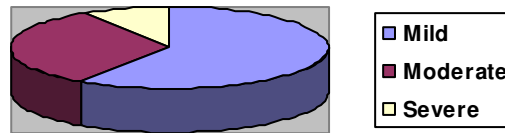


Fig.1.The distribution of the severity of malnutrition

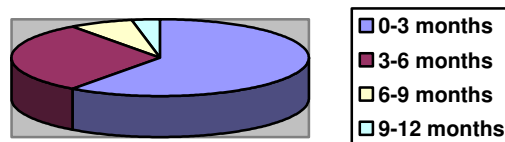


Fig. 2 The distribution of the age

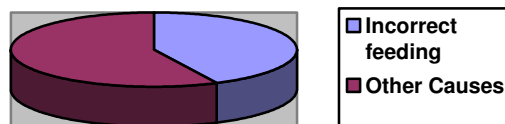


Fig. 3 The distribution on etiology

The statistics from literature indicated that the most increased incidence of malnutrition is in the first 3 months of life, the period with the most intense rate of growing. According to this, in our study 60% from the malnutrition cases were detected in this interval of age.

Although the study indicates the predominance of the males, in our observations females were more affected.

In the first 6 months of life malnutrition was more frequent in the artificial feed infants than in breast feed subjects – 68%, in concordance with the data from literature. In majority were infants fed with cow milk.

Correlation with the low socio-economical conditions and level of education of the family matches the data from statistics.

CONCLUSIONS

1. The evaluation of the nutritional status in infants for detecting the malnutrition disturbances is important because of the morbidity and mortality which are involved.
2. The incorrect feeding was the most important cause of malnutrition in infants.
3. Majority of the cases appeared in the first 3 months of life and low socio-economic and educational level of the families were correlated with appearance of malnutrition in infants.

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