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HYGIENIC ASSESSMENT OF PHYSICAL DEVELOPMENT INDICATORS AND MORBIDITY IN POST-TERM INFANTS.

Ortiqov Bobomurod Baymamatovich
Associate Professor, PhD, Department of Hygiene of Children, Adolescents and Nutrition, Tashkent State Medical University
Hasanova Sayyora Shomurot qizi
Master's Student, Department of Hygiene of Children, Adolescents and Nutrition, Tashkent State Medical University

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Abstract:
This study is devoted to examining the physical development indicators and morbidity rates among post-term infants. Based on the analysis conducted among 94 children, it was found that 61.7% were boys and 38.3% were girls. Significant deviations were observed in anthropometric parameters of height and weight: 59% of children showed minimal deviations, while 23% had maximal deviations. According to the data on morbidity, the most common diseases were respiratory tract infections (60%) and rickets (56%). In addition, gastrointestinal disorders, anemia, allergic, and congenital diseases were also identified. The results of the study indicate that the level of physical development and susceptibility to diseases in post-term infants are directly related to the quality of nutrition and care conditions.

Keywords: post-term infants; anthropometric indicators; morbidity

INTRODUCTION. While the impact of preterm birth on the subsequent development of children has been widely studied, data on the effects of post-term growth on child development remain limited. The research data includes 3,850 infants born at less than 35 weeks of gestation who survived. Growth was assessed at 3, 9, 18, 24, 36, 48, and 60 months using Body Mass Index (BMI) Z-scores. Cognitive development at the age of 5 was measured using Global School Adaptation (GSA) scores. Latent class analysis was used to identify different growth patterns, and a propensity score–adjusted logistic regression model was applied to assess the association between identified growth trajectories and cognitive development outcomes[7,8]

A large retrospective obstetric cohort study conducted in the United States analyzed singleton late preterm and full-term deliveries. Cases involving spontaneous preterm birth, major congenital anomalies, chorioamnionitis, and emergency cesarean deliveries were excluded from the analysis. To identify indicated late preterm births, four types of medical and obstetric comorbidities were considered. To evaluate variation between centers, a fixed-effects model based on modified Poisson regression and interaction terms was used. During the analysis, sociodemographic factors, comorbidities, and characteristics of hospitals and healthcare providers were taken into account.[5,6]

Maternal social-demographic, socio-economic, environmental conditions, and occupational harmful factors during the antenatal period are important risk factors for child health. These risks affect the child not only at birth but also during the preschool years. A history of stillbirths, complications during the current pregnancy (such as the use of modern reproductive technologies, eclampsia, multiple pregnancies, abnormal fetal position, preterm or post-term birth, anemia, swelling, protein in urine) and complications during labor (such as rapid labor or use of vacuum extractor) have the greatest negative impact on the child's health at birth and continue to affect the child's growth.

Other important risk factors for child health during the preschool period include the future mother's urinary and endocrine diseases, single-parent family status, low income, exposure to electromagnetic radiation in the family's living area, and harmful working conditions for the future mother (such as exposure to gases, working on a conveyor belt, radiation exposure). [1,4]

Children's development was assessed by teachers using the Australian Early Development Index (AEDI) during the national census of children entering primary school in 2009. Children scoring in the lowest 10% on the AEDI were classified as developmentally vulnerable. Children born at 40–41 weeks' gestation may have the lowest risk of developmental vulnerability at school entry, confirming the importance of term birth for perinatal care. Early term or post-term birth can help doctors, teachers, and parents identify children who may be developmentally vulnerable at school entry. [2,3,8]

Healthy nutrition should be organized and monitored

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taking into account the age indicators of the young organism, as well as its physical and mental development capacities (including both healthy children and those with disabilities). This is necessary because at each stage of growth, the young organism differs in physical and mental activity and must also perform functions such as the prevention and development of age-related diseases.

OBJECTIVE: To hygienically assess the physical development and morbidity status of post-term born children.

OBJECT: Data on the physical development and morbidity status of children treated at the Infant Diseases Department of the Multidisciplinary Clinical Hospital of Tashkent Medical Academy were analyzed.

MATERIALS: The study involved 94 post-term born children (58 boys and 36 girls) treated at the Infant Diseases Department of the Multidisciplinary Clinical Hospital of Tashkent Medical Academy. Their medical histories were examined using specially designed questionnaires. During the research, the diseases of post-term children were studied based on their medical histories and individual examination records. The analysis of diseases occurring in the children was conducted according to the International Classification of Diseases (ICD-10).

RESULTS: According to the obtained results, post-term birth was studied in relation to gender, anthropometric indicators (height, weight), and morbidity status. The results based on gender are presented in the following figure (Figure 1.).

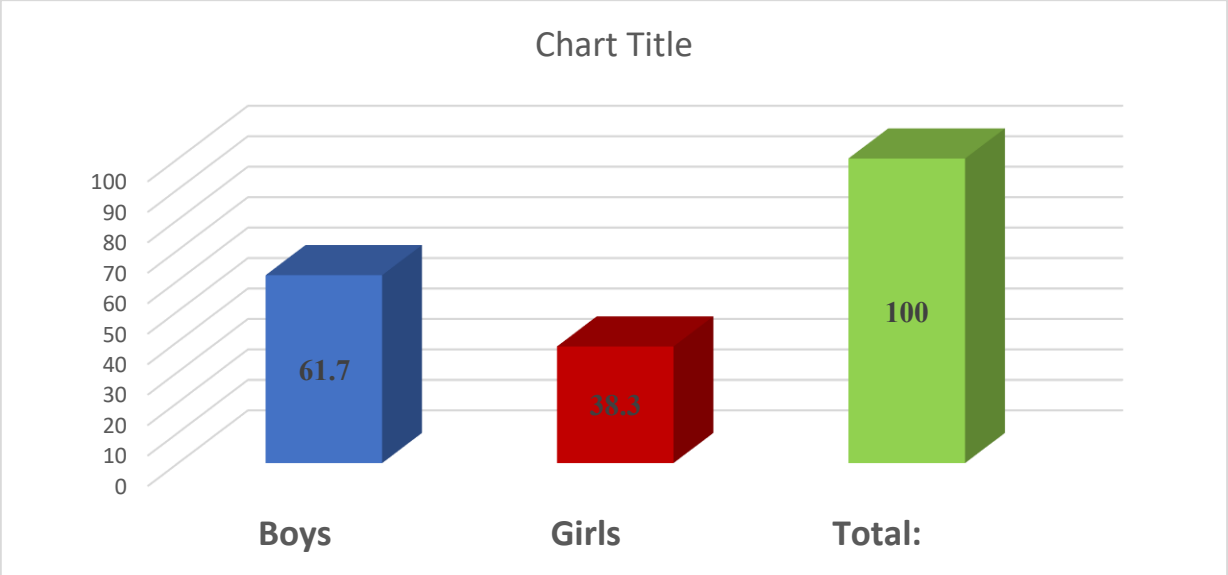

Figure 1. Distribution of post-term births by gender, %

Post-term births accounted for 61.7% in boys and 38.3% in girls (Figure 1). The results of our study show that post-term births were more common in male children.

Table 1.
Analysis results of anthropometric indicator (height) in post-term births.

№	Anthropometric Indicator (Height)	Percentage (%)	Number of Patients	Notes
1.	Born with normal height	35%	18	Children in this group have height within the normal range and are considered to have normal physical development..

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2.	Born with minimal deviation	61%	30	These children have slight deviations in height, but it does not seriously affect their health. They are relatively normally developed.nisbatan normal rivojlanishda.
3.	Born with maximal deviation	4%	2	Height significantly differs from the norm, requiring medical observation and monitoring.
4.	Total:	100%	50	All observed children are fully accounted for.

The anthropometric indicator (height) of post-term children aged 0-6 years was studied in three categories: 35.0% were born with normal height, 61.0% showed minimal deviation, meaning the child's height exceeded the standard length, and the remaining 4.0% had maximal deviation (Table 1).

Table 2.
Analysis results of the anthropometric indicator (weight in kg) in post-term births.

No.	Anthropometric Indicator (Weight)	Percentage (%)	Number of Patients	Notes
1	Born with normal weight	18%	9	Children with normal body weight and healthy development.
2	Born with minimal deviation	59%	30	Body weight slightly deviated, but this does not cause serious problems.
3	Born with maximal deviation	23%	11	Body weight significantly differs from the norm and requires medical supervision.
4	Total	100%	50	All observed children are fully accounted for.

The anthropometric indicator (weight in kg) of post-term children aged 0–6 years was studied in three categories: 18.0% were born with normal weight, 59.0% exceeded the standard weight, and the remaining 23.0% showed a maximum deviation.

Table 3.
The prevalence of the most common illnesses in post-term born children.

Disease Indicators	Absolute, n	%
Rickets (Vitamin D deficiency)	28	56%
Respiratory Diseases (RD)	30	60%
Gastrointestinal Disorders (diarrhea, constipation)	18	36%
Congenital Diseases	2	4%
Anemia (low hemoglobin)	17	34%
Allergic Reactions (skin rash, food allergy)	8	16%
Other Diseases	28	56%

The most common illnesses were respiratory diseases (60%) and rickets (56%), followed by gastrointestinal diseases (36%), anemia (34%), allergic conditions (16%), congenital diseases (4%), and other diseases (56%). The latter category included various mild conditions such as colds, skin diseases, or nervous system-related issues.

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CONCULSION

The results of the conducted study show that physical development deviations are common among post-term children. Normal development in terms of height and weight parameters was observed only in a small portion of the children. At the same time, the incidence of illnesses was high, with rickets and respiratory diseases occupying the leading positions. A total of 94 children participated in the study. The most frequently encountered diseases among them were respiratory diseases (60%) and rickets (56%), followed by gastrointestinal diseases (36%), anemia (34%), allergic conditions (16%), congenital diseases (4%), and other diseases (56%), which included various mild conditions such as colds, skin diseases, or nervous system-related disorders.

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