INCREASING THE ROLE OF PEDIATRICIANS IN THE EARLY DIAGNOSIS OF BRONCHIAL ASTHMA IN AN OUTPATIENT-POLYCLINIC SETTING

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Relevance: Bronchial asthma (BA) is the most common chronic disease among children, and its untimely diagnosis and incorrect treatment can lead to delays in the child's physical development, a sharp decline in quality of life, and disability. In practice, a BA diagnosis is often delayed until the disease has progressed to a moderate or severe stage. One of the main reasons for this is the low index of suspicion among pediatricians in the primary health care setting, particularly in outpatient clinics, regarding the early, subtle signs of BA. Other factors include insufficient use of modern diagnostic methods (peak flowmetry, spirometry) and difficulties in differential diagnosis with other conditions presenting with chronic cough or recurrent bronchitis. Therefore, developing and implementing comprehensive measures aimed at improving the skills of pediatricians and providing them with the necessary tools and clear algorithms for the early detection of BA is a highly urgent task for modern pediatrics and public health.

Keywords: bronchial asthma, children, early diagnosis, pediatrician, primary care, polyclinic, peak flowmetry, spirometry, risk factors, allergic history, differential diagnosis.

Objective: To improve the early diagnosis of bronchial asthma in children and evaluate the effectiveness of implementing targeted training programs and standardized diagnostic algorithms for pediatricians in an outpatient-polyclinic setting.

Materials and Methods: The study was conducted over 12 months in 4 family polyclinics in Andijan city, involving 52 general practitioners-pediatricians. During the first 6 months (control period), the pediatricians' usual practice for diagnosing BA was analyzed. Subsequently, special training courses were conducted for the pediatricians covering BA risk factors, early clinical signs, modern diagnostic criteria (based on GINA recommendations), and interpretation of peak flowmetry and spirometry results. All pediatricians were provided with peak flow meters and diagnostic questionnaires. In the following 6 months (intervention period), the results of their practice after the training courses were studied. The study included 1245 children aged 3 to 14 years who presented with respiratory complaints (chronic or recurrent cough, paroxysmal shortness of breath). The final diagnosis was confirmed by an allergist-pulmonologist. Efficacy was assessed based on the number of correctly diagnosed BA cases, the time to diagnosis, and the rate of overdiagnosis (incorrectly diagnosing a healthy child).

Results: In the control period, the rate of BA diagnoses made by pediatricians that were subsequently confirmed by a specialist was 45%. After the implementation of the training and new algorithms, this figure rose to 78% during the intervention period ($p<0.001$). The number of early diagnoses of mild, intermittent forms of BA increased by 2.5 times. The average time from the first complaint to the BA diagnosis decreased from 14 months in the control period to 5 months in the intervention period. 90% of pediatricians acquired the skill to correctly perform and evaluate peak flowmetry independently.

Concurrently, the rate of BA overdiagnosis decreased from 12% to 5%, indicating that the training courses improved not only diagnostic accuracy but also the quality of differential diagnosis.

Discussion: The results indicate that targeted and continuous training of pediatricians on BA, combined with providing them with clear and simple diagnostic tools (questionnaires, peak flow meters, algorithms), is highly effective for early disease detection. Often, due to heavy workloads and a shortage of specialists, pediatricians diagnose nonspecific BA symptoms as "acute respiratory disease" or "recurrent bronchitis." The special training enhances their focus on collecting allergic history, identifying trigger factors, and correctly interpreting objective examination findings. The widespread introduction of a simple and inexpensive method like peak flowmetry into primary care allows for the effective screening of patients suspected of BA without resorting to expensive and complex investigations.

Conclusions: Increasing the role of pediatricians in the outpatient-polyclinic setting is the most effective and economically viable way to ensure the early diagnosis of bronchial asthma in children and prevent its severe complications. Organizing regular training courses based on modern clinical recommendations within the continuing medical education system, providing pediatricians with necessary diagnostic tools, and establishing close communication with allergists-pulmonologists should be a priority for the healthcare system.

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