Volume 3, Issue 6, June 2025 ISSN (E): 2938-3765

TIMOMEGALIA IN CHILDREN COMBINED WITH BRONCHIAL OBSTRUCTION SYNDROME: REVIEW ARTICLE

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Abstract
Timomegalia is the enlargement of the thymus gland, most commonly detected in young children, especially in the neonatal and early childhood periods.
Despite the fact that the thymus plays a key role in the formation of the immune system, its pathological enlargement can lead to respiratory disorders, especially in combination with bronchial obstruction syndrome (BOS). This review article examines the clinical aspects, pathogenetic mechanisms, diagnostic methods, and treatment approaches for thymomegaly in children with bronchial obstruction syndrome.

Keywords: Bronchoblastic syndrome, diagnostics, thymomegaly, immune system, lymphocytes.

Introduction

The thymus is the central organ of the immune system responsible for the differentiation and maturation of T-lymphocytes. In newborns and children of the first years of life, the organ has a relative hypertrophy, which is often considered a physiological norm. However, in a number of situations, we may be talking about pathological thymomegaly accompanied by respiratory disorders. Of particular clinical importance is the combination of thymomegaly with bronchobstructive syndrome - a complex of symptoms that includes narrowing of the bronchial lumen due to inflammation, mucosal edema, hypersecretion, and bronchospasm. Such a combination represents a complex clinical situation requiring a multidisciplinary approach.

Etiology and pathogenesis. Timomegaly can be physiological, primary (idiopathic), or secondary - as a result of past infections, immunological disorders, or the influence of perinatal factors. In pathological thymomegaly, a compression effect of the enlarged thymus on the trachea and main bronchi is possible, which exacerbates the course of the bronchobstructive syndrome.
In addition, hyperfunction of the thymus can be associated with the disregulation of the T-cell link of immunity, which predisposes to the hyperreactivity of the bronchi. Bronchoblastic syndrome in childhood is usually associated with viral respiratory infections (RS virus, adenovirus, parainfluenza), allergic inflammation, or congenital respiratory anomalies. In the presence of thymomegaly, these factors acquire additional pathogenetic significance, since the narrowing of the respiratory tract due to external pressure is combined with an internal inflammatory or allergic component.

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Clinical picture. Clinical manifestations depend on the degree of thymus enlargement and the severity of bronchial obstruction. The following can be observed in children:

- • difficulty breathing, especially in a horizontal position;
- • inspiratory or expiratory shortness of breath;
- • attacks of expiratory suffocation;
- • whistling breathing (vesicular with prolonged exhalation);
- • increased fatigue, pallor of the skin;
- • frequent ARVI with a prolonged course and a tendency to obstruction.
- In severe thymomegaly, the anterior mediastinum may bulge, the trachea and blood vessels may shift, which can be detected on chest x-rays.

Forecast and outcome. In most cases, with timely diagnosis and correction of bronchial obstruction, the prognosis is favorable. The thymus tends to involve towards adolescence, making thymomegaly a temporary phenomenon. However, in combination with immunodeficiency conditions, recurrent obstruction, or ineffective therapy, the prognosis may worsen, requiring more aggressive intervention.

Conclusion

Timomegalia in combination with bronchial obstruction syndrome is a clinically significant pathology in children, requiring a differentiated approach to diagnosis and treatment. The management of such patients should include multidisciplinary involvement of a pediatrician, pulmonologist, immunologist, and, if necessary, a thoracic surgeon. With adequate therapy, it is possible to achieve stable remission and normalize respiratory function.

References

1. Burxanova, D. S., T. A. Umarova, and Z. E. Kudratova. "Acute myocarditis linked to the administration of the COVID 19 vaccine." *Центральноазиатский журнал образования и инноваций* 2.11 (2023): 23-26.
2. Burkhanova, D. S., F. O. Tursunov, and F. THYMOMEGALY Musayeva. "THE STATE OF HEALTH OF CHILDREN IN THE FIRST YEAR OF LIFE." *Galaxy International Interdisciplinary Research Journal* 11.10 (2023): 62-64.
3. Шарипов, Р. Х., Н. А. Расулова, and Д. С. Бурханова. "ЛЕЧЕНИЕ БРОНХООБСТРУКТИВНОГО СИНДРОМА У ДЕТЕЙ." *ЖУРНАЛ ГЕПАТО-ГАСТРОЭНТЕРОЛОГИЧЕСКИХ ИССЛЕДОВАНИЙ,(SI-3)* (2022).
4. Jalilova, D. M., and D. S. Burkhanova. "Learning to Write Prescriptions for Soft Drug Forms." *Eurasian Medical Research Periodical* 13 (2022): 34-37.
5. Farkhadovna, Ismatova Iroda Farkhadovna, and Burkhanova Dilovar Sadridinovna. "EFFECT OF SURFACTANT ON THE RESPIRATORY SYSTEM, MEDICAMENTS WHO ARE OVERTAKING SURFACTANT." (2023).

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