

EARLY DETECTION AND PREVENTION OF COMPLICATIONS OF SPAZMOPHILIA IN CHILDREN

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Annotation: This article discusses spasmophilia disease observed in children, its pathogenesis, clinical signs, methods of early detection, and preventive measures to avoid complications. The study analyzes real data from clinical practice, highlighting opportunities to reduce complications through early diagnosis and targeted treatment.

Keywords: spasmophilia, hypocalcemia, children, prevention, diagnostics, blood test, rickets.

Introduction

Spasmophilia is a condition mainly seen in children aged 6 months to 2 years, caused by disturbances in calcium metabolism in the body, manifesting with hypocalcemia and neuromuscular excitability. The disease often develops in association with rickets but can also occur independently in some cases.

Pathogenesis

Spasmophilia results from a decrease in blood calcium (hypocalcemia), an increase in phosphorus, and a deficiency of parathyroid hormone. This condition increases neuromuscular excitability and presents with clonic or tonic muscle spasms.

Clinical signs

There are three main clinical forms of spasmophilia:

1. Latent form: No clinical signs, but special tests (Chvostek, Trousseau, Lust) yield positive results.
2. Tetany: Sudden stiffening of muscles in the hands and feet, laryngospasm, and apnea.
3. Spasmophilia-specific syndromes: Carpopedal spasms, bronchospasm, ECG changes, lowered blood pressure.

Early detection methods

Early detection of spasmophilia is crucial for preventing complications. The following methods are effective:

- Clinical examination: signs of rickets, muscle tone, hyperreflexia, and trophic changes.
- Biochemical tests: determining levels of calcium, phosphorus, magnesium, and alkaline phosphatase in the blood.
- Electrolyte tests: identifying hypocalcemia and hypophosphatemia.
- Electrocardiography (ECG): QT interval prolongation — a hallmark of spasmophilia.

Complications

If not diagnosed in time, spasmophilia can lead to the following complications:

- Severe forms of tetany (laryngospasm, bronchospasm, cardiospasm)
- Apnea and respiratory arrest
- Increased sensitivity to environmental stimuli
- Developmental delay

Prevention

To prevent spasmophilia:

- Rickets prevention: supplementation with vitamin D (especially in winter and spring).
- Rational nutrition: breast milk and mixtures enriched with calcium, magnesium, and vitamin D.
- Dispensary monitoring: children predisposed to rickets should be regularly monitored.
- Educating mothers: teaching breastfeeding mothers about proper nutrition and vitamin intake.

Conclusion

Spasmophilia is a frequent condition in children that can lead to severe complications. Early detection and appropriate preventive measures can prevent complications. Therefore, in pediatric practice, it is important to implement methods that quickly and effectively identify changes related to calcium metabolism.

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