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

# DIAGNOSTICS OF NON-RHEUMATIC CARDITIS IN CHILDREN

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**Abstract**
Heart muscle lesions are most often of non-rheumatic etiology, the main causes may be viral infections rather than bacterial ones. Research by N.A. Belokon et al. showed that in children, non-rheumatic carditis (NRC) can be congenital or acquired [1-8].

**Keywords**: Non-rheumatic carditis, children, etiology, viral infections, bacterial infections, diagnostics.

## INTRODUCTION

### Aim of the Study

Carefully collect anamnesis, especially antenatal, correctly assess the severity of the condition during examination, take into account the presence of extracardiac and cardiac syndromes, purposefully prescribe laboratory and instrumental studies, early and correct diagnosis, and also prescribe adequate therapy in a timely manner.

### Materials and Methods

Considering that some difficulties were encountered when diagnosing non-rheumatic carditis, analyzing the symptom complex of patients, the following main syndromes were identified for diagnosis:

1. The presence of a previous infection, proven by clinical and laboratory data;
2. Signs of myocardial damage, from which “major and minor” criteria of non-rheumatic carditis were identified: The “major” criteria included: pathological changes in the ECG, increased activity of sarcoplasmic enzymes in the serum;
3. Cardiomegaly according to radiological data;
4. Congestive heart failure; “Minor” criteria: tachycardia, weakening of the 1st heart sound, golap rhythm.



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We examined 36 newborns in the Department of Neonatal Pathology and Cardiorheumatology of the Regional Children's and Medical Center of the city of Samarkand. Of particular interest in all the examined children was the presence of a viral infection in the antinatal history of 21 newborns in the first half of pregnancy and 15 newborns in the second half of pregnancy.

**Results and Discussion**

Upon admission to hospital, the general condition of 2 patients was critical, 20 (50%) newborns were in severe condition, and 14 (38.8%) were in moderate condition. The patients' complaints were mainly of an extracardiac nature: low birth weight, weak cry, lethargy when sucking, cyanosis in the nasolabial triangle, fatigue, anxiety and groans at night, vomiting and regurgitation, insufficient weight gain, pale skin with a grayish tint, obsessive cough, poor appetite.

During an objective examination, 33 (91.6%) newborns were found to have tachycardia, enlargement of the left border of the heart, muffled or dull first heart sound, and systolic murmur over the cardiac regionin the general blood test, 32 (88.8%) patients showed an elevated ESR, on average 14 to 42 mm/h, 28 (77.7%) children had moderate leukocytosis with a left shift, on the ECG, 13 (36%) newborns had extrasystole, 23 (63.8%) had sinus tachycardia, and 3 (9%) had sinus bradycardia, 10 (27%) had incomplete grade 1 A-V block, and 28 (77.7%) had signs of ventricular overload. Echocardiography shows that 30 (83%) newborns had left ventricular hypertrophy. Radiographs showed cardiomegaly and enlarged cardiac borders to the left.

**Conclusions**

1. For early diagnosis of NRC, it is necessary to identify the presence of viral infections and toxicosis in mothers during pregnancy.
2. When diagnosing NRC, it is essential to pay attention to the presence of extracardiac and cardiac syndromes and “major” and “minor” diagnostic criteria, and also carefully analyze clinical-epidemiological, clinical-laboratory, cardiovascular and instrumental data.
3. Timely diagnosis of NRC in children determines the appointment of adequate therapy and will allow early recovery of children.

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