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## **NECROTIZING ENTEROCOLITIS IN PREMATURE NEWBORNS**

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**Introduction.** Necrotizing Enterocolitis (NEC) is one of the most common gastrointestinal emergency primarily affecting premature infants, resulting in inflammation, bacterial invasion and necrosis of intestinal mucosa usually occurring in the first 2 weeks of life. NEC is seen in close to 10% of preterm infants weighing < 1500 g and 1-5% of all neonatal intensive care admissions. Precise etiology of NEC remains elusive.

**Aim:** to recognize clinical signs of NEC in preterm newborns in order to provide accurate management.

**Materials and methods:** clinical case.

**Results.** Newborn girl S. was admitted to the NICU after primary resuscitation measures. Anamnesis: Baby is from the 1st pregnancy, 1st preterm delivery in 34 weeks of gestational age (GA) via C-section. Pregnancy background: placental dysfunction, oligohydramnios, mild anemia. Prenatal prophylaxis of Respiratory Distress Syndrome was done. Birth weight – 1300 g (appropriate for GA). Apgar score assessment – 5/7.

On the 3rd day of life, baby's condition became worse due to development of intestinal problems. Clinical presentation: adynamia, lethargy, gastric retention, vomiting, feeding intolerance, abdominal distension. Diagnostic procedures: CBC (leukocytosis), abdominal X-ray (intestinal dilation, pneumatosis). Diagnosis: NEC, Stage 2a, Mild (according to Modified Bell's Staging Criteria for NEC). Treatment: rapid initiation of therapy is necessary. Newborn received appropriate care and feeding regimen, antibacterial treatment according to neonatal guidelines.

**Outcome:** infant underwent treatment and nursing in the post-intensive care unit and was discharged with satisfactory condition and body weight 2600 g on the 64th day of life.



Conclusion. It is crucial to understand the clinical presentation as the signs of NEC are protean and maybe insidious. Early diagnosis is necessary to provide the correct management to prevent the development of severe complications such as perforation of intestine and sepsis.

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### **SUPRAVENTRICULAR EXTRASYSTOLE IN NEWBORN**

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Introduction: Arrhythmias are common in neonatal period and may occur in neonates with normal heart or in those ones with structural diseases. Arrhythmia is defined as abnormality of heart rate or rhythm. It is classified as bradycardia, tachycardia, extrasystole and fibrillation. Extrasystole is a premature contraction of the heart that arises in response to an impulse in some part of the heart other than from sinoatrial node. Based on the ectopic origin, extrasystole may be supraventricular and ventricular.

Aim: to learn how to identify and manage neonatal arrhythmia.

Materials and methods: clinical case.

Results: Newborn boy M. Baby is from the 2nd pregnancy, 2nd term delivery in 39 weeks of gestational age. Apgar score assessment – 8/9. Birth weight – 2950 g.

Soon after delivery physical examination revealed presence of arrhythmia in newborn: extra heart beats were detected with stethoscope.

Diagnostic procedures: ECG (sporadic atrial extrasystole), echocardiography (patent foramen ovale – 3.9 mm). Diagnosis: Neonatal Arrhythmia – Supraventricular (Atrial) Extrasystole. Patent Foramen Ovale. Treatment: observation is necessary in case of neonatal Supraventricular Extrasystole.

During the observation in the maternity hospital baby's condition remains satisfactory without any disorders, frequency of extrasystoles on heart auscultation and ECG decreased.