

FEATURES OF CARDIAC RHYTHM DISORDERS IN PREGNANT WOMEN AT DIFFERENT GESTATIONAL AGES

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Introduction. Cardiac rhythm disorders are relatively common during pregnancy and may be associated with physiological cardiovascular changes, while their clinical significance depends on the type of arrhythmia, symptom severity and gestational age. A systematic clinical and instrumental assessment is therefore important for timely identification of women requiring closer monitoring.

Keywords: pregnancy; cardiac arrhythmias; cardiac rhythm disorders; gestational age; Holter monitoring; electrocardiography; anemia.

Objective. To assess the clinical and laboratory characteristics of idiopathic cardiac rhythm disorders in pregnant women at different gestational ages.

Materials and Methods. The study included 80 pregnant women examined at the multidisciplinary clinic of Samarkand State Medical University in 2024–2026. The main group consisted of 50 pregnant women with idiopathic cardiac rhythm disorders; 30 women with physiological pregnancy comprised the control group. Clinical examination, electrocardiography, echocardiography, 24-hour Holter ECG monitoring, complete blood count and biochemical investigations were performed. The main group included 12 women in the first trimester, 18 in the second and 20 in the third trimester.

Results. Palpitations were reported by 42 (84.0%) women, sensations of irregular heartbeat by 36 (72.0%), exertional dyspnea by 31 (62.0%), and chest discomfort by 25 (50.0%). The most frequent rhythm abnormalities were supraventricular extrasystoles — 11 (22.0%), sinus tachycardia — 9 (18.0%), and ventricular extrasystoles — 5 (10.0%). Incomplete bundle branch block was detected in 4 (8.0%) women, functional left ventricular overload in 6 (12.0%), and ST-segment depression or T-wave flattening/inversion in 8 (16.0%).

The mean gestational age at first presentation was 28.1 ± 1.2 weeks, with a range from 8 to 41.4 weeks. Exacerbation of rhythm disorders was observed in 11 (22.0%) women and occurred predominantly during the third trimester. The most clinically significant period was 28–36 weeks of gestation, when an increase in rhythm-related complaints and arrhythmia activity was observed.

Laboratory assessment demonstrated a higher frequency of anemia in the main group compared with controls: 18 (36.0%) versus 6 (20.0%). Mean hemoglobin levels decreased progressively with gestational age, from 86.2 ± 1.4 g/L in the first trimester to 73.3 ± 1.1 g/L in the third trimester.

Conclusion. Idiopathic cardiac rhythm disorders in pregnancy demonstrate clinically relevant gestational-age dynamics, with the greatest burden of symptoms and arrhythmia exacerbations observed during the third trimester, particularly at 28–36 weeks. The combination of clinical assessment, ECG, Holter monitoring and laboratory evaluation allows more complete characterization of rhythm disorders and identification of pregnant women requiring intensified follow-up.

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