

TREATMENT OF EXTRASYSTOLIC ARRHYTHMIA IN PREGNANT WOMEN WITHOUT STRUCTURAL HEART DISEASE: FOCUS ON BISOPROLOL

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Extrasystolic ventricular and supraventricular arrhythmias are the most frequent heart rhythm disorder in pregnant women. Ectopic beats and non-sustained arrhythmia are encountered in more than 50% of pregnant women investigated for palpitations (D.L.Adamson, C.Nelson-Piercy, 2007). The high frequency of arrhythmias is due to the physiological changes in pregnancy, such as increased circulating blood volume, increased heart rate, autonomic nervous system changes, increased serum concentrations of catecholamines, increased sensitivity of adrenergic receptors, systemic vasodilatation, increased synthesis of estrogen, progesterone, prostaglandins, renin. In the case of arrhythmia in pregnant women, the doctor should correlate the threat of arrhythmia to the health of the mother and the fetus on the one hand and the risk of adverse effects of drug therapy - on the other hand. The important rule in the treatment of arrhythmias in pregnant women is to avoid the appointment of antiarrhythmic drugs if heart rhythm disorders are not life-threatening.

Objective: to evaluate the antiarrhythmic efficacy (for extrasystolic ventricular and supraventricular arrhythmias) of cardioselective beta-blockers bisoprolol fumarate in pregnant women without structural heart disease.

Materials and methods. 26 pregnant women in the gestation period of 28-36 weeks with symptomatic extrasystolic arrhythmia were examined and treated. All women did not have any structural heart diseases. Extrasystolic arrhythmia was first diagnosed during pregnancy in 11 patients, it existed before pregnancy in 15 patients (all of them noted worsening of arrhythmia during pregnancy). Standard electrocardiography and Holter monitor were performed for all pregnant women.

Results and discussion. Supraventricular extrasystolic arrhythmia (SVEA) was detected in 12 patients, ventricular extrasystolic arrhythmia (VEA) in 14 patients. The main complaints of the patients were palpitations, sensations of irregular heartbeats, discomfort in the chest, anxiety. First of all, officinal sedative herbal medications containing extracts of *Valeriana officinalis*, *Mentha piperita*, *Melissa officinalis* were used to pregnant women for arrhythmia arresting. Potassium and magnesium preparations were also used for the same purpose. Non-antiarrhythmic therapy (herbal medications and electrolytes) was effective in 11 (42,3%) patients: 5 (41,7%) women with SVEA and in 6 (42,9%) women with VEA. Cardioselective beta-blockers bisoprolol was prescribed to women with ineffective non-antiarrhythmic therapy. In this cases, bisoprolol was administered to patients in a dose of 2.5-5 mg per day. The advantage of bisoprolol over other antiarrhythmics is the proven absolute absence of teratogenic and fetotoxic effects (in an animal experiment). Bisoprolol was effective in 6 (85,7%) patients with SVEA and in 6 (75%) patients with VEA. All patients, who received the non-antiarrhythmic therapy and bisoprolol gave birth to full term healthy babies. Status of newborn by Apgar scores equal to 8-9 points in 18 mothers and 6-7 points in 8 women. Pathological blood loss during childbirth was not observed in any case.

Conclusion. We believe that cardioselective beta-blockers bisoprolol can be the first step of the empirical antiarrhythmic therapy for extrasystolic arrhythmia in pregnant women without structural heart disease. Use of bisoprolol in these women is safe and effective method of treatment of extrasystolic arrhythmia, especially supraventricular type. In the final analysis, we are observing a positive pregnancy outcomes.