

Experience of management secondary arterial hypertension during pregnancy due to of aortic coarctation

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Introduction. Native severe coarctation is a condition in which pregnancy is at risk – WHO IV, which means pregnancy is contraindicated. Diagnosis of aortic coarctation is quite poor in developing countries. Management of hypertension during pregnancy is challenging due to the fetal toxic impact of some drugs. It is important to remember that strict blood pressure control in such patients may lead to fetal hypoperfusion. Materials and methods. We are presenting seven cases of secondary arterial hypertension management in pregnant women due to aortic coarctation. One of the women had mid-aortic syndrome and another one was diagnosed with hypoplastic transverse arch after coarctation repair. Mean age of patients was $25,71 \pm 5,28$ years. Mean term of gestation at the time of diagnosis was $23,28 \pm 5,76$ weeks. Mean systolic blood pressure on admission was $175,71 \pm 32,58$ mmHg. Results. All patients received antihypertensive drugs. Mean SBP on medication was $147,86 \pm 29,70$ mmHg. Four patients had percutaneous intervention for their coarctation. Three of them had coarctation stenting. The woman with transverse aortic arch hypoplasia had arch stenting when she was at the 15-th week of pregnancy. She experienced spontaneous rupture of the fetal membrane at the day of intervention which was managed conservatively. Spontaneous uneventful vaginal delivery occurred in three women who had intervention before labor. One patient with severe coarctation stenting had caesarian section. Three patients had coarctation stenting after childbirth. One woman experienced acute aortic dissection type A on the 4-th day after caesarian section. On the same day she had coarctation stenting than supracoronary ascending aorta replacement and patent ductus arteriosus ligation. All pregnancies were completed successfully with healthy babies born in term. Mean SBP after intervention was $126,42 \pm 10,69$ mmHg. Mean pressure gradient decreased from $55,0 \pm 20,81$ to $13,71 \pm 8,79$ mmHg. Conclusion. Stenting of coarctation during pregnancy seems to be safe and effective option. There is no sufficient evidence still to draw definite conclusions about the optimal time of interventions. But, in our opinion it should be done before the labor due to high risk of cardiovascular complications despite strict blood pressure control. Interventions before 24-th week of gestation should be avoided in order to prevent miscarriages.