

Editorial

A Mothers' Heart

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Received: November 29, 2015; **Accepted:** January 21, 2016; **Published:** January 22, 2016

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"The times they are a 'changing' indeed that's a powerful statement. It certainly applies to what's happening in the perinatal arena. Women are older, delaying pregnancy and dealing with chronic diseases and their sequelae have become the norm, rather than the exception. Cardiovascular disease is now the number one killer of women in this country and while its effects are felt across the age spectrum for the pregnant woman, its presence can be disastrous.

The physiologic demands of pregnancy have a significant impact on the cardiovascular system. Peripheral vasodilation from hormonal influences, resulting in decreased vascular resistance, is noted to be one of the first cardiovascular changes in pregnancy. Cardiac output, in response, increases with a nadir of up to 40-50% by 28 weeks, over the non-pregnant state. This increase in cardiac output occurs primarily from multiple factors thickened cardiac wall muscle mass, increased contractility, ventricular end diastolic volume and heart rate.

In labor, this cardiac output again increases significantly during maternal pushing efforts, due to sympathetic stimulation from the pain of labor and auto-transfusion of blood back into the circulation with each uterine contraction. Immediately post delivery, cardiac output again increases, primarily secondary to the relief of the aortocaval compression by the gravid uterus [1].

The impact of these physiologic changes to the pregnant woman with cardiac disease will vary depending on the type and/or severity of the underlying cardiac condition. Despite the potential for significant maternal mortality, most patients with underlying cardiac disease can expect a good perinatal outcome with meticulous antenatal,

intrapartum and postpartum management [2]. So if a pregnant woman has, or is at risk for cardiovascular disease here are some pearls of wisdom to enhance chances of a good pregnancy outcome.

Know Before You Go: Risk factors for heart disease include hypertension, diabetes, high cholesterol, tobacco abuse and stressful life style. So before conceiving, optimize health by visiting a health provider and fine tuning and/or obviating any underlying risk factor get the blood sugars in line, cut out the smoking, decrease stress, start an exercise regimen for weight loss, change the diet and maintain compliance with taking blood pressure/cholesterol medications.

Keep Your Appointments: Pregnancy with cardiovascular disease has effects, not only for the mother but the fetus as well. Issues with appropriate fetal growth and well-being are uppermost in the mind of any provider caring for a pregnant woman with heart disease. Expect more appointments with the health provider, more sonograms and fetal testing and it is essential that compliance be maintained to afford a positive perinatal outcome.

Your Pregnancy Past May Predict Your Cardiovascular Future: For women whose pregnancies were complicated by preeclampsia, preterm labor, or inability to lose the baby weight after delivery know that there exists an increased risk of developing cardiovascular disease later in life. Know your pregnancy past and ensure that yearly evaluations with the health provider are in place to monitor health.

Consider Being Part of the Process: The bulk of research on cardiovascular disease has focused on the physiology of MEN not WOMEN. Cardiovascular disease in women presents differently, may have a different genetic basis, and may require treatment regimens tailored exclusively for a woman's body. Given such, women should consider being part of a clinical trial evaluating cardiovascular disease in women.

So in the final analysis, recognize that knowledge is power let it all work together to protect and enhance, A Mothers' Heart.

References

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