

Maternal and Neonatal Complications in Women with Valvular Heart Disease

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Aim:

The aim is to assess maternal and neonatal outcome for pregnant women with valvular heart disease.

Materials and Methods:

A retrospective case-control study evaluated women with valvular heart disease followed in a specialized cardiac high-risk pregnancy clinic at Sheba Medical Center between 2004-2010. Healthy women who gave birth at our center concurrently served as controls, in a 2:1 ratio. Maternal (cardiac and non-cardiac) and neonatal complications were assessed, after controlling for confounders.

Results:

35 pregnancies of women with valvular heart disease were analyzed. 70 women without heart disease served as controls. 17 women had MS, 13 had AS and the rest suffered other valvular complications, including 23 with combined disease.

Maternal cardiac complications were directly related to the valvular disease severity index, and included 1 maternal death, 2 thrombotic events (PE), 8 arrhythmias, and 7 events of pulmonary congestion. 10 women required ICU admission.

Overall, obstetric complications were more prevalent among study women. Women in the study group delivered earlier, smaller babies, with 26% delivering prior to 37 weeks' gestation, compared with 7% of controls. The odds ratio for preterm (<37wks) delivery was 4.5 (95% CI 1.38; 14.7, p=0.02). Other obstetric complications (PIH, preterm delivery, placental abruption or PPH) were 3 times higher for study group women (OR 3.1, 95% CI 1.14; 8.44, p=0.04).

Maternal valvular disease was a risk factor for admission to the neonatal ICU (OR 18, 95% CI 5.33-63.14, p<0.001). Furthermore, the overall risk of neonatal complications was 4 times higher for women with valvular disease compared with controls (OR 4.21, 95% CI 2.15-8.25, p<0.001).

Conclusions:

Preexisting valvular heart disease imposes significant risks on the pregnant woman. The risk of adverse pregnancy and neonatal outcome should be explained in detail to such women contemplating pregnancy.