Lowered oral anticoagulation in young pregnant women carrier of mechanical aortic valve prostheses in developing countries

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Objective: Newer-generation bileaflet mechanical aortic valve used for valve replacement shows success in allowing young pregnant women to be safely and effectively managed with low doses of anticoagulant therapy, in developing countries.
The aim of the study was to demonstrate tolerance of an inconsistent INR level, without increase in thromboembolic events, in pregnant girls underwent aortic valve replacement with mechanical prostheses.

Methods: A population of 324 young pregnant women with mechanical aortic valve prostheses were consulted.
Between 6-12 weeks of pregnancy, warfarin has been substituted with unfractionated heparin 17,500-20,000 units every 12 hours.
During the second and third trimester patients received lower-dose warfarin (INR 1.5-2.0). Low risk patients received 81mg aspirin daily. High risk patients received 325mg aspirin daily. Risk factors were: heart rhythm problems, left ventricular dysfunction (EF less than 30%), previous neurological events (stroke or transient ischemic attack), hypercoagulability status.
Two weeks before delivery warfarin and aspirin were discontinued and switched again to heparin. 4-6 hours after delivery standard anticoagulation therapy was resumed.

Results: Patients had significantly lower bleeding event rates.
There were no significant differences in terms of total neurological events between low-dose and standard-dose warfarin use.
The occurrence of thromboembolic events (transient ischemic attack without neurologic sequelae) in two cases might be explained by several factors. INR values were less than 1.5 when the event occurred. Patients had known risk factors: atrial fibrillation and high fibrinogen concentrations.

Conclusion: Our data demonstrate that low-dose INR does not increase the risk of thromboembolic events compared with conventional dose INR, in pregnant women carrier of mechanical aortic valve prostheses.
Lower dose anticoagulation therapy, combined with low-dose aspirin, resulted in a reduction of 60% of the incidence of adverse bleeding events without significant increases in total neurological events when used in conjunction with new design mechanical aortic valve.