**ANTICOAGULATION IN PREGNANT WOMEN WITH POSTHETIC VALVES**

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Over-review on anticoagulation in pregnant women with mechanical prosthetic heart valves (MPHV) will be presented in addition to our experience with low molecular heparin (LMWH) treatment in this patient population.

Background: LMWH is often used in pregnancy including for MPHV. In spite of ACC/AHA recommendations cases of valve thrombosis occur in women receiving LMWH. We thought that recommended peak anti-Xa levels are associated with sub-therapeutic trough levels during pregnancy.

Results: 26 pregnant patients receiving LMWH s/c q12 h who had both through and peak anti-Xa levels (177 determinations) were enrolled. Peak anti-Xa levels 0.7-1.2 units/ml was obtained in 93 (53%) of the measurements, but in 65% of through levels out of these 93 were found to be sub-therapeutic (<0.6 units/ml). Sub-therapeutic trough levels were found in 78% measurements with peak levels of 0.7-0.79 units/ml, 81% of 0.8-0.89 units/ml, 69% of 0.9-0.99 units/ml 54% of 1.0-1.09 units/ml, 24% of 1.1-1.19 units/ml, 1/11 (99%) of 1.2 units/ml. There were 51 measurements of peak anti-Xa > 1.2 units/ml, but 5 of them (10%) showed sub-therapeutic trough levels. Trough levels of anti-Xa &#8805; 0.6 units/ml (0.6-1.2 U/ml) were found in 116 measurements. High peak levels >1.5 units/ml in only 7.

Conclusions: Anticoagulation with adjusted does LMWH aimed to achieve guidelines recommended peak levels of anti-Xa is commonly (>50%) associated with sub-therapeutic trough levels which may result in reported thromboembolic complications. Routine measurements of trough anti-Xa levels are recommended during pregnancy to assure adequate level of anticoagulation.