

Results: We studied 26 pregnant patients receiving anticoagulation with LMWH given s/c q12 h who had both trough and peak anti-Xa levels throughout pregnancy for a total of 177 determinations. Indications for LMWH treatment were: MPV in 9 patients, MS and AF in 11 patients and others in 6. At peak anti-Xa levels between 0.7-1.2 U/ml was obtained in 93 (53%) of the measurements, but in 65% they were found to be subtherapeutic (anti-Xa level <0.6 U/ml). Subtherapeutic trough levels were found in 7/9 (78%) measurements with peak levels of 0.7-0.79 U/ml, 13/16 (81%) of 0.8-0.89 units/ml, 18/26 (69%) of 0.9-0.99 U/ml 13/24, (54%) of 1.0-1.09 U/ml, 4/17 (24%) of 1.1-1.19 U/ml, 1/11 (9%) of 1.2 U/ml. There were 51 measurements of peak anti-Xa > 1.2 U/ml, but 5 of them (10%) showed subtherapeutic trough levels. Trough levels of anti-Xa \geq 0.6 U/ml (0.6-1.2 U/ml) were found in 116 measurements. High peak levels exceeded 1.5 U/ml in only 7(6%), and 6 of these had trough levels \geq 0.8 U/ml.

Conclusions: Anticoagulation with adjusted does LMWH aimed to achieve guidelines recommended peak levels of anti-Xa is commonly associated with subtherapeutic trough levels. Routine measurements of trough anti-Xa levels have to be recommended in women with PMV treated with LMWH during pregnancy to assure adequate level of anticoagulation.

Sub-therapeutic trough Anti-Xa levels according to peak Anti-Xa levels								
Peak anti-Xa level (unit/ml)	0.7-1.2	0.7-0.79	0.8-0.89	0.9-0.99	1.0-1.09	1.1-1.19	1.2	> 1.2
Sub-therapeutic	54/101	7/9	13/16	18/26	13/24	4/17	1/11	5/5
Trough level (unit/ml)	(51%)	(78%)	(81%)	(69%)	(54%)	(24%)	(9%)	(10%)