

ABSTRAKT

In the group of 73 patients with recurrent spontaneous abortions, which they had a personal history of at least one thrombophilic disposition, either congenital acquired mutation of factor V Leiden in heterozygous form, or 20210 mutation in the gene of factor II in heterozygous form or mutation in the gene for MTHFR 677T or 1298C in heterozygous or homozygous form, or they had acquired thrombophilic disposition of antiphospholipid syndrome, or hyperhomocysteinemia, we studied the level-progress of blood coagulation parameters during the entire pregnancy. During this period, blood samples were taken from the patients on a regular basis. By some patients the parameters were examined even before pregnancy. Patients were getting nadroparin (Fraxiparine) in the 25th – 43rd week of pregnancy, alternatively enoxaparin (Clexane) who had showed allergic reaction.

With the indirect detection method using a chromogenic substrate for the analyzer Sysmex CA-1500 (Sysmex-TOA) we evaluated functional activity of plasminogen, plasminogen activator inhibitor and α_2 -antiplasmin.

With the direct non-competitive ELISA method, we found out a quantitative amount of antigen plasminogen tissue activator, plasminogen activator inhibitor and trombomodulin.

We documented that the levels of trombomodulin and plasminogen behave the same way like by healthy women who had physiological course of pregnancy. The level of TM with advanced pregnancy increased by 19,9% and the level of plasminogen, that already at the end of II. trimester exceeded the reference limit, increased by 36,98%.

The most noticeable growth throughout pregnancy we observed in the levels of PAI-1 [5]. The value of its activities was reaching boundary limits during II. trimester and at the end of pregnancy it was three times higher. The total increase in activity PAI-1 over the entire period of gravidity was 378%. The levels of antigen PAI-1 were reaching already at the beginning of pregnancy the upper reference limit. The fourfold increase during pregnancy was whole 326%. The increased level of PAI-1 we found by patients even in the period before they got pregnant.

The reaction of tPA levels in our group was identical with increasing values shown by healthy women throughout the pregnancy as per Kvasnicka. The values of tPA during pregnancy moved within reference limits, although their increase did 79,68%.

Different development we observed in the levels of α_2 antiplasmin. Patients with recurrent spontaneous abortions had at the beginning of pregnancy increased level of α_2 antiplasmin, but throughout the pregnancy the level was sinking. The level-decline of α_2 antiplasmin was not significant (0,91%) and throughout the pregnancy it had moved within the reference limit. Unfortunately the results don't correlate with the α_2 antiplasmin levels by physiological pregnancy, where the value [5] increases throughout the gravidity. Our patients had at the end of pregnancy almost the same values like in the period before pregnancy.

As outcome we did find out a difference in behaviour of α_2 antiplasmin, but we can not explain connection of thrombophilic disposition by women with recurrent spontaneous abortions based only on one differently behaving parameter and therefore we can not solve this problem as for haematology aspect. Therefore the question of influence of thrombophily on recurrent spontaneous abortions remains in existence.[45].

The curative effect of LMWH given to our patients has been verified by 67 healthy born children.[1]