

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



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PECULIARITIES OF INDICATORS OF COAGULATION SYSTEM OF WOMEN IN LATE PREGNANCY

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Introduction. Pregnancy is associated with changes in haemostasis, including an increase in the majority of clotting factors. PT is important for monitoring the use of oral anticoagulants and presurgical screening of the blood coagulation system. APTT is highly sensitive to decreased levels of factors in the intrinsic pathway (factors V, VIII, IX, X, XI, XII), hereditary or acquired coagulation disorders, and liver failure. ARTT does not depend on the number of platelets and is an essential indicator for assessing and diagnosing the preoperative risk of bleeding.

The aim of the study. In the paper, we carried out an analysis of the parameters of the blood coagulation system, characterizing the internal APTT (Activated Partial Thromboplastin Time) and the external coagulation pathway RT (Prothrombin Time) for 83 patients of the department of obstetrics pathology in August 2021, who did not have systemic hemostasis pathologies. INR and APTT coefficient were used to standardize indicators.

Material and methods. Venous blood sampling of the patients was performed on an empty stomach from the ulnar vein. As an anticoagulant, 3.2% (109 mmol/L) trisodium citrate was used in a ratio of 1:9 to the volume of whole blood. Platelet-poor plasma was obtained by centrifugation at 2000 rev/min for 10 min. The resulting plasma is stable at room temperature for up to four hours. Determination of APTT and RT was carried out on a two-channel semi-automatic coagulometer DIAGON COAG-2D using diagnostic kits: DIA-PTT LIQUAD and DIA-PT. Control plasmas DIA-CONT I-II (No. 910436) were used for control with normal (I) and hypocoagulable (II) data. According to the analyzer program Dia-PTT LiQuid test results are reported in the following units:

- seconds, which means the observed clotting time;
- ratio (APTT/MNPTT), which means the clotting time of the sample divided by the mean normal APTT (MNPTT).

Dia-PT test results were reported in the following units:

- second, which means the observed clotting time;
- percentage, which means the proportional part of the normal PT activity, which is calculable from the calibration curve;
- INR which means the ratio raised to the power of International Sensitivity Index (ISI). $INR = (PT/MNPT)^{ISI}$. MNPT-means normal prothrombin time.

The INR is the only officially recognized dimension of the result in vit. K antagonists treated patients. The normal range expressed in INR is 0.8-1.2. Reference ranges are following on Diagon analyzers (Coag Line).

Results. The main results of the research are presented in the table.

Table.

Indicators of the blood coagulation system of pregnant women, (M ± m), n=83

	PT _{sec} (M ± m)	INR _{ratio} (M ± m)	% (M ± m)
PT	12.44 ± 1.33	0.94 ± 0.011	92.3 ± 13.7
APTT	30.05 ± 3.18	1.15 ± 0.26	---

Conclusions. The study of the main indicators of coagulation hemostasis in pregnant women in the late stages of pregnancy showed a slight prolongation of the index of the internal coagulation pathway (APTT). Although in literature sources, most authors are inclined to its activation and vice versa - reduction to four seconds, therefore the norms for pregnant women in the third trimester are 17-23 seconds. As for the external coagulation pathway from PT, we did not notice any apparent changes, so the external pathway for the vast majority of patients remained within the physiological norm.