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PROGNOSTICATION OF DEVELOPMENT OF PLACETAL DYSFUNCTION AND GESTATIONAL COMPLICATIONS IN WOMEN WITH VARICOSE VEINS

Abstract. *To apply the correlation method of sign with the purpose to prognosticate the development of placental dysfunction and certain complications of pregnancy in women with varicose veins. We have calculated coefficients of sign correlation concerning the possibility to prognosticate the most important parameters of the occurrence of placental dysfunction and certain complications of pregnancy in women of the main group. The correlation method enables to carry out deeper analysis of pathogenic relations existing between different processes during pregnancy in women with varicose veins and obtain new considerable data concerning the efficacy of the applied methods to prevent placental dysfunction.*

Key words: placetal dysfunction, varicose, veins.

Introduction. To prognosticate placental dysfunction and certain complications of pregnancy in every individual case the correlation method of signs has been applied enabling to assess the degree of relations between certain clinical symptoms (by an appropriate parameter deviated from the norm) when certain pathology occurs. In case of closer correlation it will enable to prognosticate more substantially occurrence of obstetrical pathology in pregnant women with varicose veins. This method assumes calculation of sign correlation coefficient measuring a relative power of relations between two alternative parameters.

Objective: to apply the correlation method of sign with the purpose to prognosticate the development of placental dysfunction and certain complications of pregnancy in women with varicose veins.

Materials and methods. We have calculated coefficients of sign correlation concerning the possibility to prognosticate the most important parameters of the occurrence of placental dysfunction and certain complications of pregnancy in women of the main group.

Availability of correlations was determined with probability level of correlation coefficient $p \leq 0,05$. The form of connection was assessed according to the analysis of the coefficients of the linear and non-linear correlation and its errors. It should be noted that concerning all the examined relations the largest evidence was obtained concerning their linear form, therefore, the value of Pearson linear correlation coefficient was applied as the value of connection strength. Determined correlation coefficients differed not only in their values but the sign as well, which is marked by means of the symbols «+» (directly proportional relation) and «-» (inversely proportional relation).

Before presenting the results of the study it should be noted that correlation coefficients between the pairs of parameters were determined in every group of the study separately using a certain principle of division into subgroups.

The main group (pregnant women with varicose veins) was divided into two subgroups: I subgroup – pregnant women with varicose veins in compensation stage (n=26), II subgroup – pregnant women with varicose veins in subcompensation stage (n=24).

Results. The data obtained are presented in Table 1. Deviation from the norm of every analyzed parameter enables to prognosticate with high accuracy development of placental dysfunction in pregnant women with varicose veins in the stage of compensation and subcompensation.

The parameters to prognosticate the danger of interruption of pregnancy are presented in Table 2. It should be noted that the danger of interruption of pregnancy is the most prognosticated in case of deviation of systolic-diastolic index in the uterine arteries and decrease of the spiral arteries with complete gestational rebuilding, and both these parameters are directly correlated.

The parameters to prognosticate a partial exfoliation of the chorion and placenta are presented in Table 3.

Table 1

Ssign correlation coefficients (SCC) and the value of "positive prognosticated assessment" (PPA) parameter concerning the development of placental dysfunction and the most important parameters of the fetal-placental complex indices in case of varicose veins.

Parameters	Main group (pregnant women with varicose veins in compensation stage) n=26	Main group (pregnant women with varicose veins in subcompensation stage) n=24
Above normal decrease of placental lactogen concentration in the blood serum of a pregnant woman	SCC = +0,751 PPA=0,833	SCC = +0,769 PPA =0,851
Above normal decrease of placental lactogen concentration in the trophoblast of the placental villi	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851
Above normal decrease of estradiol concentration in the blood serum of a pregnant woman	SCC = +0,724 PPA =0,817	SCC = +0,721 PPA =0,809
Above normal decrease of progesterone concentration in the blood serum of a pregnant woman	SCC = +0,512 PPA =0,642	SCC = +0,509 PPA =0,615
Above normal increase of systolic-diastolic index in the uterine arteries	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851
Above normal decrease of spiral arteries with complete gestational rebuilding	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851
Immature chorial tree	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851

Table 2

Sign correlation coefficients (SCC) and the value of "positive prognosticated assessment" (PPA) parameter concerning the danger of interruption of pregnancy and the most important indices of the fetal-placental complex parameters in women with varicose veins

Parameters	Main group (pregnant women with varicose veins in compensation stage) n=26	Main group (pregnant women with varicose veins in subcompensation stage) n=24
Above normal decrease of placental lactogen concentration in the blood serum of a pregnant woman	SCC= +0,512 PPA=0,642	SCC = +0,509 PPA =0,615
Above normal decrease of placental lactogen concentration in the trophoblast of the placental villi	SCC = +0,512 PPA =0,642	SCC = +0,509 PPA =0,615
Above normal decrease of estradiol concentration in the blood serum of a pregnant woman	SCC = +0,512 PPA =0,642	SCC = +0,509 PPA =0,615
Above normal decrease of progesterone concentration in the blood serum of a pregnant woman	SCC = +0,536 PPA =0,671	SCC = +0,539 PPA =0,686
Above normal increase of systolic-diastolic index in the uterine arteries	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851
Above normal decrease of spiral arteries with complete gestational rebuilding	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851
Immature chorial tree	SCC = +0,512 PPA =0,642	SCC = +0,509 PPA =0,615

Table 3

Sign correlation coefficients (SCC) and the value of "positive prognosticated assessment" (PPA) parameter concerning a partial exfoliation of the chorion and placenta of the fetal-placental complex condition in women with varicose veins.

Parameters	Main group (pregnant women with varicose veins in compensation stage) n=26	Main group (pregnant women with varicose veins in subcompensation stage) n=24
Above normal decrease of placental lactogen concentration in the blood serum of a pregnant woman	SCC= +0,417 PPA=0,523	SCC = +0,406 PPA =0,509
Above normal decrease of placental lactogen concentration in the trophoblast of the placental villi	SCC = +0,417 PPA =0,523	SCC = +0,406 PPA =0,509
Above normal decrease of estradiol concentration in the blood serum of a pregnant woman	SCC = +0,417 PPA =0,523	SCC = +0,406 PPA =0,509
Above normal decrease of progesterone concentration in the blood serum of a pregnant woman	SCC = +0,417 PPA =0,523	SCC = +0,406 PPA =0,509
Above normal increase of systolic-diastolic index in the uterine arteries	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851
Above normal decrease of spiral arteries with complete gestational rebuilding	SCC = +0,751 PPA =0,833	SCC = +0,769 PPA =0,851
Immature chorial tree	SCC = +0,417 PPA =0,523	SCC = +0,406 PPA =0,509

According to the data presented in Table 3 a partial exfoliation of the chorion and placenta is most reliably prognosticated in case of disorders of the fetal-placental circulation.

Discussion. The results of the studies presented and the analysis of prognostication of placental dysfunction, danger of interruption of pregnancy enabled to suggest that there are certain interrelations between the investigated processes characterizing different sides of the development of placental dysfunction in the main group of women. With the purpose to analyze possible pathogenic relations the correlation method was applied which enables to determine their availability, form and strength with determined degree of probability.

Conclusion. The correlation method enables to carry out deeper analysis of pathogenic relations existing between different processes during pregnancy in women with varicose veins and obtain new considerable data concerning the efficacy of the applied methods to prevent placental dysfunction.

References:

1. Goshovska AV, Polova SP, Davidenko IS. Prognozuvannya chastoti ginekologichnih zahvoryuvan. Uskladnen vagitnosti ta uskladnen u pologah za dopomogoyu metoda dovirchih intervaliv vidsotku. Materialy V Mezinarodni Vedecko-Prakticka konferece «Predni Vedecke Novinky; 2009 (Peredovyie nauchnyie razrabotki). Dil. 6; Praga, 2009. S. 3-5.

2. Goshovska AV, Rak LM. Prognozuvannya disfunktsiyi fetoplatsentarnogo kompleksu u vagitnih, hvorih na tuberkuloz. Naukoviy potentsIal Ukrayini 2009. MaterIali p'yatoyi vseukrayinskoyi naukovo-praktichnoyi konferentsiyi. Chastina 2; 2009 March 25-27;. S. 17-9.

3. Davidenko IS. Vikoristannya teoriyi informatsiyi dlya otsinki strukturnoyi organizatsiyi riznih tipiv horialnih vorsin platsenti pri fiziologichniy vagitnosti. Visnik morfologiyi. 2005;11(1):5-10

4. Filippov OS, Kazantseva AA. Prognosticheskaya znachimost razlichnyih metodov diagnostiki fetoplatsentarnoy nedostatochnosti. Problemyi reproduktsii. 2003;(3): 60-3.

5. Chepka YuL. Prognozuvannya fetoplatsentarnoyi nedostatnosti na osnovi statistichnogo bagatofaktornogo komp'yuternogo anallzu. Ukrayinskiy medichniy chasopis. 2003;33(1):105-8.