

GAS DISCHARGE VISUALIZATION PARAMETERS OF THE ACUPUNCTURE POINTS RELATED TO THE UTERUS IN CASE OF NORMAL PREGNANCY AND DISTURBED UTEROPLACENTAL BLOOD CIRCULATION.

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Practically all the types of pregnancy distress are characterized by the disturbed blood circulation of the “mother – placenta – fetus” system. Recently stereo- and chrono-depending mechanisms of the disturbed uteroplacental haemodynamics in case of a threatened abortion have been discovered. Evident disturbances of the uteroplacental circulation in the early stages of pregnancy end up with a spontaneous abortion in 45% of cases (Jaffe R. et.al., 1995). Disturbances in the uteroplacental circulation in the II trimester are mainly connected with intrauterine growth retardation, premature birth (Harrington K. et.al., 1997). The development of pregnancy failure together with haemodynamical dysfunctions is followed with the alteration of properties of the acupuncture points related to the uterus. These changes are fixed when analyzing monopolar GDV (V.S.Gimbut et. Al. 1999).

The goal of the given reserch was to study the gas discharge visualization (GDV) parameters of the acupuncture points related to the uterus during disturbed uteroplacental blood circulation.

During the research 67 pregnant in the I – II trimesters with deviations from the normative values of uteroplacental and/or fetoplacental haemodynamics were examined. The same group involved patients with the symptoms of pregnancy failure, early hestosis, intrauterine growth retardation with the found disturbances of blood circulation. 18 patients in the I – II trimesters with physiological pregnancy and regular values of blood circulation in the uterine artery and umbilical cord constituted a control group.

Important indices of blood circulation were estimated: systolo-diastole relation, pulse index and etc. By the gas discharge visualization technique the misbalance coefficient in the uterine sector on the right (MCd) and left (MCs) hands was calculated using the method, developed at the Rostov SRI of Obstetrics and Pediatrics.

The values of systolo-diastole relation among the pregnant with the disturbed uteroplacental blood circulation in the I trimester revealed no reliable difference between the right and left uterine artery. However, these values were higher, compared to the control group ($p < 0,05$). MC values were reliably higher in the group with the disturbed blood

circulation. Normal pregnancy in the I trimester was characterized by the extremely low MC values on both hands.

Groups	I trimester			
	Vs/Vd Dexter	Vs/Vd Sinister	MC d	MC s
Control	2,00±0,10	2,19±0,12	0,27±0,08	0,09±0,06
Blood circulation disturbance	2,95±0,47	3,29±0,7	1,24±0,33	0,92±0,35
	II trimester			
Control	1,69±0,12	1,79±0,11	0,11±0,06	0,12±0,06
Blood circulation disturbance	1,93±0,18	1,87±0,16	1,01±0,17	0,41±0,17

In the II trimester high variability of the blood circulation values in all the groups was found. The values of systolo-diastole relation of the uterine arteries were higher in the group with the disturbed blood circulation. GDV-graphy in the group with the disturbed blood circulation also revealed a considerable growth of MC values, compared to the control group ($p < 0,05$) (Table). The data of the correlation analysis revealed proportionality of the disturbed blood circulation degree and GDV parametric values of misbalance.

Fig.1. Blood circulation in case of normal pregnancy and pregnancy complication.

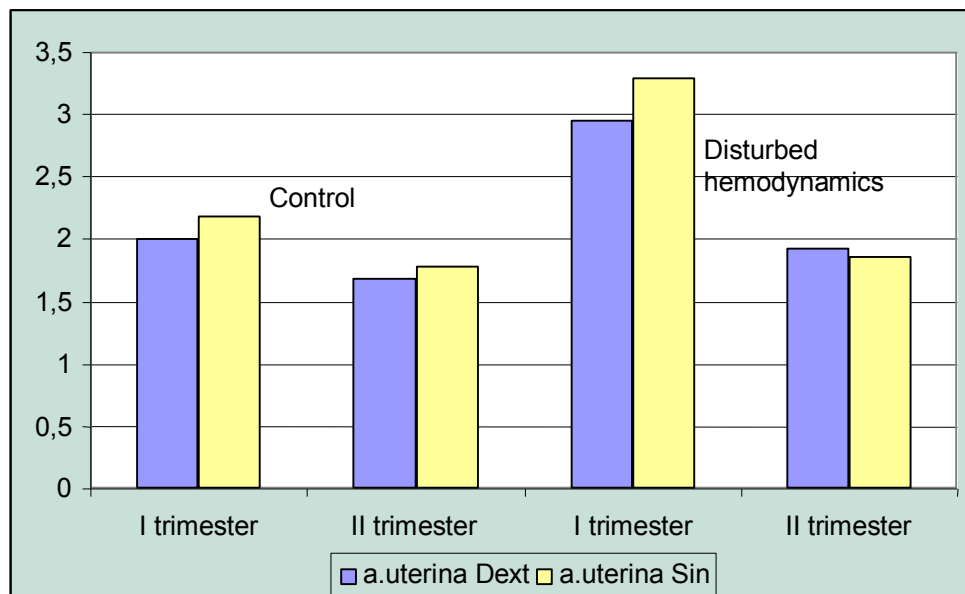
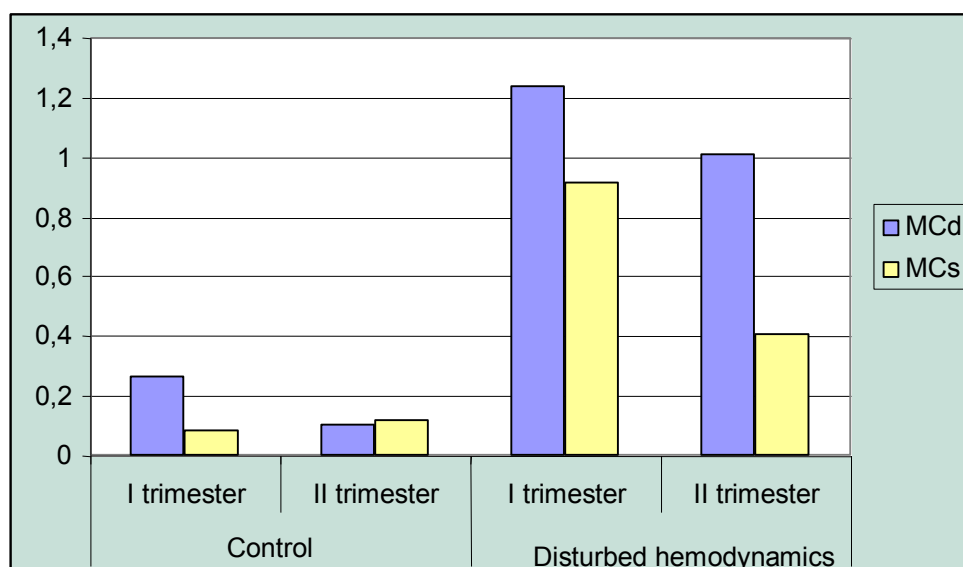


Fig.2. GDV parameters in case of normal pregnancy and pregnancy complication.



Thus, for the first time, when comparing GDV parameters and blood circulation in the uterine arteries, a reliable difference of the blood circulation values and GDV in case of regular pregnancy and pregnancy complication both in the first and second trimesters were revealed.

Regular pregnancy with the undisturbed uteroplacental blood circulation is characterized by extremely low values of GDV parameters. With the disturbed uteroplacental blood circulation, connected with pregnancy failure or other types of pregnancy distress and diagnosed by dopplerometry – a reliable increase of the misbalance coefficient of the acupuncture points related to the uterus is revealed on both hands (fig.1, 2). It seems expedient to use this fact in diagnosis of early pathological pregnancy distress.