Yasnikovska S.M.

PROGNOSTICATION OF PLACENTAL DYSFUNCTION DEVELOPMENT IN PREGNANT WOMEN WITH BACTERIAL VAGINOSIS

Department of Obstetrics, Gynecology and Perinatology
Bukovinian State Medical University

Placental dysfunction (PD) is a multicomponent syndrome occurring due to a disorder of the compensatory-adaptive mechanisms of the fetoplacental complex (FPC) and occupies a leading place in the structure of perinatal pathology and mortality. Numerous studies have shown that infection is one of the main causes of PD and determines the health of newborns. This is largely due to the tropism of pathogens to embryonic tissues, as well as the fact that fetal cells with their high levels of metabolism are an ideal environment for the reproduction of organisms. In patients with exacerbation of infectious diseases during pregnancy 55.2% account for PD. PD is evidenced to occur in women with disorders of vaginal microcynosis 2-4 times more often than in healthy pregnant women.

90 pregnant women at 8-12 weeks of gestation were examined at the obstetric clinic: the 1st group (main) consisted of 50 pregnant women with bacterial vaginosis (BV), the 2nd group (control) - 40 pregnant women with vaginal normocenosis. The criteria for screening-diagnosis of BV were the following: a significant or moderate amount of homogeneous vaginal discharge with a milky color with an unpleasant pungent odor; pH of vaginal contents ≥4.5; positive amine test; "Key" cells in Gram-stained vaginal swabs. All the women underwent examination of uteroplacental circulation on the ultrasound diagnostic device "SonoAce 8000 Life". Color Doppler mapping and pulsed Doppler examination of the uterine arteries were performed. Evaluation of blood flow velocity curves was performed by determining the systolic-diastolic ratio (S / D), resistance index (RI) and pulsation index (PI). At 30 weeks of gestation, all the patients in the main and control groups were examined for the diagnosis of placental dysfunction (if primary placental insufficiency that had developed progressed to placental dysfunction).

Doppler study of blood flow in the uterine arteries found a significant increase in vascular resistance indices in 23 (46%) pregnant women with BV. Thus, the indicators of vascular resistance in the uterine arteries were higher than the standard values, on an average 1.5-2 times (S / D - 2.9 ± 0.45; PI - 1.82 ± 0.09; IP - 0, 46 ± 0.04). Blood flow velocity curves in the uterine arteries were characterized by a low diastolic component. In 11% of cases Doppler determined a pathological notch in the diastole phase.

In the control group, low-resistance blood flow was observed in the uterine artery basin. Curves of blood flow velocities in the uterine arteries were characterized by low pulsation and high diastolic component. The average values of vascular resistance S / D, RI and PI in the uterine arteries were, 1.91 ± 0.6; 0.58 ± 0.04; 0.33 ± 0.08, respectively, which corresponded to the permissible norms for a given gestational age.

Pregnant women of the main group with impaired uteroplacental circulation were diagnosed with primary placental dysfunction. Therefore, appropriate pathogenetic therapy was prescribed for them according to the clinical protocols of the Ministry of Health of Ukraine. Later, at 30 weeks of gestation, the diagnosis of placental dysfunction was registered in 4 (17.4%) out of 23 examined, and intrauterine growth retardation (IUGR) was found in 1 (4.3%) pregnant women from this group after treatment.

As a result of the study, significant changes in Doppler parameters of blood flow in the uterine arteries of the examined pregnant women with BV were found. These diagnostic criteria enabed to find insufficiency of the placental bed and diagnose PD at the preclinical stage (8-12 weeks of pregnancy). Early, pathogenetically justified correction of the detected disorders reduced the risk of placental dysfunction and fetal malformation in women with BV compared with the average population data.