

with a history of preeclampsia have a double risk of subsequent ischemic heart disease, stroke and thromboembolic events within the next 5-15 years after pregnancy. None of the 98 women after birth complicated with preeclampsia was not monitored, and so they developed complications.

Conclusions. Preeclampsia is associated with a 4-fold increase in future incident heart failure and a 2-fold increased risk in coronary heart disease, stroke, and death because of coronary heart or cardiovascular disease. This important association can be used to screen for women with an increased risk to better target counselling on lifestyle modifications such as weight loss, exercise, and a healthier diet.

Key words: preeclampsia, maternal morbidity, complications

86. CHARACTERIZATION OF THE HUMAN ENDOMETRIAL MICROBIOME AND ITS RISKS ASSOCIATED IN INFERTILITY PATIENTS: A SYSTEMATIC REVIEW

Authors: **Mihaela Burac**

Scientific adviser: Valentin Friptu, MD, PhD, Professor, Head of Department of Obstetrics and Gynecology no.1

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Bacterial cells in the human body account for 1-3% of total body weight and are at least equal in number to human cells. Recent research has focused on understanding how the different bacterial communities in the body (eg, gut, respiratory, skin, and vaginal microbiomes) predispose to health and disease. For nearly 50 years, existing dogma has dictated that normal human endometrium is sacrosanct from microbial habitation in the absence of infection. However, while the vaginal microbiota has been investigated in depth, there is a paucity of consistent data regarding the existence of an endometrial microbiota and its possible impact in reproductive function.

Aim of the study. To summarize the evidences derived from international studies on endometrial microbiome, its composition and potential influence in fertility and reproductive outcomes.

Materials and methods. This study is a systematic review of data of the characteristics of endometrial microbiome in women with infertility and its association with the cause of infertility, conception rates and early pregnancy loss. Systematic literature searches of the electronic databases: Pubmed, EMBASE, the Cochrane library, MEDLINE, INTECH were performed up to February 2018 and included 44 studies. Studies were included if they reported on, at least, one of the following: characterization of endometrial microbiome in infertility – 30 studies, association with conception – 18 studies, with early pregnancy loss – 15 studies.

Results. The most represented genus was *Lactobacillus* (71.7% of identified bacteria); while *Gardnerella* (12.6%), *Bifidobacterium* (3.7%), *Streptococcus* (3.2%), and *Prevotella* (0.866%) were the other most common genera. Based on its composition, the microbiota in the endometrial fluid, comprising up to 191 operational taxonomic units, was defined as a *Lactobacillus*-dominated microbiota - >90% *Lactobacillus* spp., or a non-*Lactobacillus*-dominated microbiota - <90% *Lactobacillus* spp. with >10% of other bacteria (*Bacteroides*, *Prevotella*, *Fusobacterium*, *Atopobium vaginae*, *Mobiluncus curtisii*). The presence of a non-*Lactobacillus*-dominated microbiota in a receptive endometrium was associated with significant decreases in implantation [60.7% vs 23.1% (P=.02)], pregnancy [70.6% vs 33.3% (P=.03)], ongoing pregnancy [58.8% vs 13.3% (P=.02)], and live birth [58.8% vs. 6.7% (P=.002)] rates.

Conclusions. The human microbiome has been termed the second genome, and its importance in reproductive success and failure has yet to be fully appreciated. The reviewed studies demonstrated the existence of an endometrial microbiota that is highly stable during the

acquisition of endometrial receptivity. However, pathological modification of its profile is associated with poor reproductive outcomes.

Key words: endometrium, microbiome, infertility.

87. THE USE OF LAST MENSTRUAL PERIOD AND THE LEVEL OF HUMAN CHORIONIC GONADOTROPIN AS SINGLE METHODS TO DETERMINE THE GESTATIONAL AGE BEFORE MEDICAL ABORTION

Authors: **Valentina Usatii**

Scientific adviser: Rodica Comendant, MD, Associate professor, Department of Obstetrics and Gynecology no.1

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova

Introduction. Most doctors prefer to make a pelvic examination or an ultrasound before abortion to estimate gestational age, which increases the cost and time for medical abortion and can be provided only by certified obstetrician gynecologists.

Aim of the study. To evaluate the certainty of women about their last menstrual period, to determine the gestational age and its correlation with the level of human chorionic gonadotropin, the safety of providing a medical abortion within less than 56 days without a prior pelvic examination and ultrasound.

Materials and methods. We conducted a retrospective study in which the last menstrual period of 150 women was evaluated. We have also determined the levels of human chorionic gonadotropin with a semi-quantitative pregnancy test in five concentration ranges: 25 mIU/ml, 100 mIU/ml, 500 mIU/ml, 2000 mIU/ml și 10000 mIU/ml and correlated the results with gestational age. Usually, the level of human chorionic gonadotropin at a gestational age of 8 weeks is less than 10000 mIU/ml and at the age of 10-12 weeks is more than 10000 mIU/ml. We have assessed the possibility of excluding pelvic examination and ultrasound for evaluation of gestational age by determining the efficacy of medical abortion and the complications that appeared.

Results. Out of 150 women seeking medical abortion, 149 (99.33%) were sure of their last menstrual period and only one patient, 0.67%, could appreciate the date of the unprotected sexual contact; 53.4% women had a gestational age of 4-5 weeks; 45.4% had 6-7 weeks and 1.2% had a gestational age of 8 weeks. Out of women with a gestational age of 4-5 weeks, 92.5% had the level of human chorionic gonadotropin of 500 mIU/ml; 5% had 100 mIU/ml; 1.25% had a value of 100 mIU/l and 1.25% had the level of 2000 mIU/ml. In the group of women with a gestational age of 6-7 weeks, 95.6% had the level 500 mIU/ml; 3% - 2000 mIU/ml, and 1.4% had the value of human chorionic gonadotropin of 100 mIU/ml. In women with 8 weeks of pregnancy only one woman, 50% had the level of human chorionic gonadotropin 500 mIU/ml and 50% had 2000 mIU/ml. No woman had a value of human chorionic gonadotropin over 10000 mIU/ml, which indicates that no woman had a gestational age over 10 weeks of pregnancy. The efficacy of medical abortion was 98.64 % and only 1.36% of women had complications, incomplete medical abortion and there were no suspicions that any woman had a gestational age over 9 weeks.

Conclusions. Last menstrual period and the level of human chorionic gonadotropin are sufficient to determine the gestational age and to provide a safe medical abortion without pelvic examination and ultrasound.

Key words: last menstrual period, human chorionic gonadotropin, medical abortion

88. PREMATURE RUPTURE OF MEMBRANES IN PRETERM BIRTH: RISK FACTORS AND PERINATAL OUTCOMES