

# ПРЕЖДЕВРЕМЕННЫЙ РАЗРЫВ ПЛОДНЫХ ОБОЛОЧЕК И СПОСОБЫ ПРОЛОНГИРОВАНИЯ БЕРЕМЕННОСТИ

С.С.Исмаилова.<sup>1,2</sup>

<sup>1</sup>Андижанский филиал государственного учреждения Республиканского специализированного научно-практического медицинского центра здоровья матери и ребенка,  
<sup>2</sup>Андижанский государственный медицинский институт.

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**Аннотация:** В последние годы во всех странах мира участились случаи недонашивания беременности среди женщин репродуктивного возраста. Течение болезни характеризуется снижением качества жизни женщин и увеличением смертности. По данным Всемирной организации здравоохранения, "... преждевременный разрыв плодной оболочки приводит к наступлению преждевременных родов в 25-54% случаев, что, в свою очередь, приводит к увеличению перинатальной смертности".

**Ключевые слова:** преждевременный разрыв плодных оболочек (ПРПО), нитразиновые тест-полоски, пробиотики.

## QOG'ONOQ PARDALARINING BARVAQT YORILISHI VA HOMILADORLIKNI UZAYTIRISH USULLARI

S.S.Ismailova.<sup>1,2</sup>

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<sup>2</sup>Andijon Davlat tibbiyot instituti.

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**Annotatsiya:** So'nggi yillarda dunyoning barcha mamlakatlarida reproduktiv yoshdagi ayollar orasida homiladorlikni muddatiga yetkaza olmaslik bo'lish holatlari ko'payib bormoqda. Kasallikning kechishi ayollarning hayot sifatining pasayishi va o'limning ko'payishi bilan tavsiflanadi. Jahon sog'liqni saqlash tashkiloti ma'lumotlariga ko'ra, "...qog'onoq pardalarining muddatidan oldin yorilishi 25-54% hollarda erta tug'ilishga olib keladi, bu esa o'z navbatida perinatal o'limning oshishiga sabab bo'ladi.

**Kalit so'zlar:** qog'onoq pardaning muddatidan oldin yorilishi, nitrazin test chiziqlari, probiyotiklar.

## PREMATURE RUPTURE OF MEMBERS AND METHODS OF PROLONGING PREGNANCY

Ismailova S.S.<sup>1,2</sup>

<sup>1</sup>Andijan branch of the state institution of the Republican Specialized Scientific-practical Medical Center of Maternal and Child Health,  
<sup>2</sup>Andijan State Medical Institute.

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**Annotation:** In recent years, cases of miscarriage among women of reproductive age have become more frequent in all countries of the world. The course of the disease is characterized by a decrease in the quality of life of women and an increase in mortality. According to the World Health Organization, "...premature rupture of the membranes leads to preterm birth in 25-54% of cases, which, in turn, leads to an increase in perinatal mortality".

**Keywords:** premature rupture of membranes (PROM), atrazine test strips, probiotics.

**Introduction:** Among the main tasks of modern obstetrics, premature birth is one of the main ones, which leads to a high level of perinatal mortality. Premature babies account for 60-80% of early neonatal mortality [1]. According to various researchers, the number of premature births ranges from 4 to 15% [3,8]. Prematurity is an important social problem due to the high material costs associated with caring for newborns, as well as a significant proportion of these children among the disabled and children with chronic pathologies [5]. The main reasons for early rupture of amniotic fluid are isthmic-cervical insufficiency, premature placental rupture, and intrauterine infection (chorioamnionitis) [6,7].

One of the hypotheses for the development of this complication is based on the insufficiency of the connective tissue elements of the membranes, which determine their ability and strength. From this point of view, the role of undifferentiated connective tissue dysplasia and lack of microelements affecting the condition of the membranes is undeniable [4]. Some modern researchers believe that infection is the main cause of the progressive disorganization of amnion components, which is realized through the activation of specific Toll receptors [2,6]. Some studies indicate the role of vaginal biocenosis in the genesis of early rupture of amniotic fluid and consider it as a manifestation of bacterial and viral infections that persist during pregnancy. In this case, the systemic inflammatory response in pregnant women with PROM is usually realized through the activation of IL-1, IL-6, IL-8, and TNF, which are early predictors of inflammatory complications. At the same time, existing ideas about the polyetiopathogenesis of PROM do not reveal all the main mechanisms of this pathology. There are still no modern reliable methods for its prediction and prevention, which contributes to an increase in the incidence of obstetric and perinatal complications during premature birth with PROM, which significantly worsens the condition of the premature fetus and newborn [2,8].

**Material and research methods:** We conducted a case-control study. This study is based on a clinical and laboratory examination of 203 pregnant women with PROM (main group) admitted to the obstetric departments of the Andijan Regional Perinatal Center from 2009 to 2015 with leakage of amniotic fluid. Along with pregnant women with PROM, 40 healthy volunteer pregnant women with a physiological course of pregnancy of the corresponding gestational age (control group) were examined. 203 women with PROM of the

main group were divided into 3 groups according to the duration of the anhydrous interval: - Group 1 consisted of 75 (33.1%) pregnant women with PROM, with an anhydrous interval lasting up to 24 hours, of which with a gestational age of 22-27 - 29 (39.0%) and with a gestational age of 28-33 - 46 (61.0%); - Group 2 - 69 (34.7%) pregnant women with PROM, the duration of the water-free interval was up to 72 hours with a gestational age of 22-27 - 29 (41.9%) and with a gestational age of 28-33 - 40 (67.5%); - Group 3 - 19 (32.5%) pregnant women with PROM with a water-free interval of more than 72 hours, of which 19 (32.5%) with a gestational age of 22-27 and 40 (67.5%). The majority of pregnant women in all 3 groups (68.3%, 53.5%, and 65.0%), respectively, by group) in whom PROM was detected were aged 20-25 years. When analyzing the obstetric history, we revealed the dependence of the time of the anhydrous interval on the aggravated obstetric history, the less complicated the obstetric history, the shorter the water-free interval. When a pregnant woman is admitted with leakage of water, she is carefully examined, a general blood and urine analysis is performed over time, and thermometry is performed. Vaginal discharge is examined for the presence of amniotic fluid. Determination of pH of vaginal contents (nitrazine test). Amniotic fluid is normal or slightly alkaline (pH 7.0-7.7), while vaginal fluid is acidic (pH 3.8-4.2). When amniotic fluid enters the vagina, the pH decreases, which is checked using a nitrazine test strip. Amni Sure Test (AmniSure® International LLC, Cambridge, MA). The AmniSure test does not require special laboratory conditions. It is carried out in maternity institutions, directly during the examination of the patient. The principle of the study is to detect a substance that is normally practically absent from the contents of vaginal secretions but is abundant in amniotic fluid - placental alpha-1-microglobulin. A special tampon is inserted into the vagina, absorbing secretions, which are lowered into a test tube with a substance that removes secretions from the tampon into solution. After this, a test strip is dropped into the test tube. If a control line appears, it means that placental alpha-1-microglobulin is present in the test material. This is evidence of a violation of the integrity of the membranes.

**Results:** Miscarriage was observed in 5 (6.7%) pregnant women in group 1, in 5 (7.2%) in group 2 and in 4 (6.8%). In this case, there is no connection between the frequency of past diseases and the duration of the anhydrous interval.

In pregnant women of group 3, the frequency of gynecological diseases in the anamnesis is approximately the same as in all other examined pregnant women. A study of the obstetric anamnesis showed the following: PROM was more observed in women who had a history of threatened miscarriage (the risk of "relapse" is 16-32%, which 4-8 times higher than in women without a history of PROM - 4%); mild premature abruption of a normally located placenta during a current pregnancy – 18 (24.0%), 6 (8.7%) and 0, respectively, by group; systemic connective tissue diseases – 2 (2.7%), 2 (2.9%) and 1 (2.5%), respectively, by group; blunt abdominal trauma – 1 (1.3%), 1 (1.4%) and 0; premature birth – 6 (8.0%), 3 (4.3%) and 2 (5.0%); bad habits: smoking; drug addiction (cocaine use) – 3 (4.0%), 1 (1.4%) and 0; anemia – 38 (50.7%), 40 (58.0%) and 39 (97.5%); underweight before pregnancy (BMI<18.1 kg/m<sup>2</sup>) 2 (2.7%), 0 and 0; in addition, low socio-economic status.

**Conclusion:** PROM in pregnant women at 22-27 weeks, prevailed in women with a history of frequent acute respiratory viral infections, and in multipregnant women, PROM in a previous pregnancy with a long anhydrous interval; PROM in pregnant women at 28-33 weeks was more common in women with painful and scanty menstruation. The microbiocenosis of vaginal contents and the sensitivity of identified microorganisms to antibiotics in pregnant women with PROM are represented by three families, Enterobacteriaceae, Streptococcaceae, and Micrococcaceae, with a predominance of Enterobacteriaceae. With a decrease in the frequency of sown microflora, the latent period of PROM lengthens, with the identification of an inverse average correlation ( $r = -0.56$ ) and a positive strong correlation ( $r = 0.76$ ) ( $P < 0.05$ ) between the pathological growth of conditionally pathogenic microflora and the incidence of chorioamnionitis. To prevent PPROM, we have developed a treatment algorithm that is based on early diagnosis of disturbances in the intestinal and vaginal microbiota. The administration of probiotics, both oral and vaginal, improves the outcome of childbirth.

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**Информация об авторах:**

© ИСМАИЛОВА С.С.- Врач высшей категории, к.м.н., Андижанский филиал государственного учреждения Республиканского специализированного научно-практического медицинского центра здоровья матери и ребенка. г.Андижан. Узбекистан.

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**Information about the authors:**

© ISMAILOVA S.S.- Doctor of the highest category, PhD., Andijan branch of the state institution of the Republican specialized scientific-practical Medical Center of Maternal and Child Health. Andijan, Uzbekistan.