

From scientific grounds to practical contraversions when taking pregnant women with a breech presentation of the fetus.

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On the tactics of management of deliveries in breech presentations

Abstract: Breech presentations remain as an urgent problem during delivery and occur with a frequency of 3 – 5 % of all births. Up today according to statistics the rate of caesarean delivery in BP accounts for 40 - 82 % and this has led to an increase in the number of women with prior cesarean delivery with corresponding complications. In recent literature there are reports about alternative methods of delivery in breech presentations. This article deals with the results of comparative evaluation of different methods of delivery in breech presentations.

The urgency of the problem. Breech presentation of the fetus remains an urgent problem of modern obstetrics, due to the frequency of occurrence, reaching 3–5% of the total number of pregnancies, and the resulting complications for the health of the mother and child [1, 2, 5]. Perinatal mortality and fetal injury are 3-5 times more common in children with breech presentation than with cephalic presentation. At the same time, with the onset of labor, there may be an untimely discharge of amniotic fluid, which contributes to the development of weakness of labor and prolonged labor, loss of small parts of the fetus, and umbilical cord. On the part of the fetus, such complications as asphyxia, intracranial birth trauma, cephalohematoma, fractures of the limbs, and injuries to internal organs are observed. In later life, these children in many cases experience such neuropsychiatric complications as central paresis, epilepsy, and mental retardation (2, 8, 14). On the part of the mother, the most common are injuries to the soft birth canal, bleeding, and postpartum purulent-inflammatory complications [1,3,4]. Currently, with a breech presentation, it is considered optimal to carry out a planned cesarean section.

In fact, a number of scientists believe that only a cesarean section (CS) should be used in this case (13). Consequently, the frequency of abdominal delivery in breech presentation increases from 60-70% to 100%. In many developed countries, there is no guidance on the use of CS in all cases of TPP. According to Ailamazyan E.K. et al. (1), additional indications for CS in TPP are the first birth after 30 years, the unpreparedness of the birth canal, post-term pregnancy, fetal weight less than 2000.0 or more than 3600.0 g, premature rupture of amniotic fluid, anomalies of labor activity. At the same time, it is necessary to remember the negative impact of postoperative scars on future reproductive health and the complications associated with anesthesia during surgery. The problem of abdominal delivery is especially relevant for countries with a high birth rate, which includes Uzbekistan. Traditionally, families have at least 3-4 children. The presence of scars on the uterus

significantly complicates the reproductive potential in such families. In the management of pregnant women with breech presentation, increasing attention is being paid to corrective exercises during pregnancy and external obstetric cephalic rotation (3). In recent years, data have appeared in the literature on alternative methods of pregnancy management and, subsequently, delivery in the breech presentation of the fetus using the external rotation of the fetus on the head in terms of 38-39 weeks. Also in world practice, there are clinical guidelines for external rotation during a full-term pregnancy.

External obstetric rotation involves full rotation from the pelvic end to the head using external procedures (5, 8). An important condition is that the size of the mother's pelvis must be normal, and any narrowing of the pelvis is a contraindication to rotation (10). In recent years, the timing of the procedure has also been revised. Whereas obstetricians performed external rotation at 34–36 weeks a few years ago, the advantage of later rotation is now being emphasized (6, 7). All indications for QC were accepted as contraindications for obstetric rotation. Bowen D. J. et al. (2021) indicate bleeding in the third trimester of pregnancy, placental abruption, infertility and a history of miscarriages, and multiple pregnancies as absolute contraindications to turning. Relative contraindications - arterial hypertension, preeclampsia, diabetes, obesity, large fetus, and uterine scar. One of the important conditions for effective obstetric rotation is a decrease in uterine tone (11, 13). However, it is not known whether tocolysis should be used in all cases or when needed.

Purpose of the study: Optimization of the outcomes of pregnancy and childbirth in breech presentation of the fetus by developing an algorithm for the management and prophylactic external obstetric rotation in full-term pregnancy.

Material and research methods: Under our supervision were 134 pregnant women with breech presentation of the fetus observed in the conditions of family polyclinics in Samarkand. The age of pregnant women varied from 18 to 36 years, there were 73 (56%) primigravidas, 61 (44%) were recurrent.

Results of the study and their discussion.

The outcome of previous births in multiparous women is as follows: births in cephalic presentation occurred in 46 women, in 15 pregnant women previous births were in breech presentation and took place using Tsovyarov's manual. Newborns born in the cephalic presentation were in satisfactory condition, and all are alive. Childbirth in the breech presentation was complicated by the weakness of labor and was stimulated with oxytocin. All children with the breech presentation were born with asphyxia of varying severity. 3 newborns died in the early neonatal period and two in the 1st year of life. All pregnant women were taken for dispensary registration in the 1st trimester, they were examined: ultrasound of the uterus and other organs, general blood and urine tests, ECG, and outpatient monitoring was carried out. The course of pregnancy in the patients we observed is presented in Table 1.

Table-1

Complications during pregnancy among the studied pregnant women

The course of pregnancy	Main group (breech presentation) n=134		Comparison group (head presentation) n=70	
	ABC.	%	ABC.	%
Without complications	43	31,8±2,7	23	35,9±3,2**
Complications:	91	68,4±2,9	47	62,7±4,1**
Risk of miscarriage	43	31,8±4,1	18	24,9±2,9**
Threat of preterm birth	15	11,3±1,7	6	7,5±1,9**
Preeclampsia	20	14,5±1,5	7	8,5±1,3**
Anemia	73	54,5±2,2	38	51,9±2,2*
Chronic placental insufficiency	9	7,1±1,9	4	4,3±0,8**
SARS	27	20,5±1,7	12	15,1±2,1**
Polyhydramnios	12	9,1±1,3	5	4,2±1,5**
oligohydramnios	8	6,3±1,8	6	6,7±2,8*

Note: *p<0.05, **p<0.001 - difference between the main and control groups

74 pregnant women with TPP, who underwent external rotation of the fetus on the head at 38-39 weeks, made up the main group and 60 pregnant women with TPP, who delivered in breech presentation, were included in the comparison group.

In 60 women out of 134 who were under our supervision in the period of 37-38 weeks, contraindications to the external rotation of the fetus on the head were revealed. In 18 women out of 60, ultrasound revealed the entanglement of the umbilical cord around the neck of the fetus, in 5 pregnant women low placentation was detected, in 12 women active labor began at 37-38 weeks. The remaining 9 pregnant women had prenatal rupture of amniotic fluid.

Contraindications for external obstetric rotation in breech presentation of the fetus

№	Complications of pregnancy	Abc. numbers (n=60)	%
1	Entanglement of the	18	29,6
2	Low placentation	5	6,9

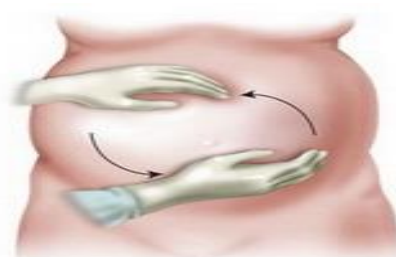
3	Э	Premature birth tugruk	12	20,1
4		Polyhydramnios	11	20,0
5		oligohydramnios	9	15,0
6		Prenatal outpouring of ketish	15	25,2
7		large fruit	19	32,1
8		Low fetal weight	7	11,7
9		multiple pregnancy	2	3,3
10		Scar on the uterus	16	26,7

In all cases, pregnant women and their relatives were consulted, the purpose and course of the manipulation were explained, and possible complications were also discussed. After consulting and obtaining informed consent for the rotation, a thorough examination was carried out by objective and subjective methods, as well as ultrasound, and the exact gestational age, fetal condition, type, position, and nature of placentation were established. The operation of external rotation of the fetus on the head was carried out according to the available international standards with the use of antispasmodics gradually, slowly according to the principle "head towards the chest, buttocks towards the back". Fetal heart rate was monitored every 5-10 minutes. The total duration of the turn was 25-30 minutes. If the first attempt failed, they were given a rest for 20-30 minutes. In 3 cases, the turn was made on two attempts and in one case on the third attempt.

After the rotation, an ultrasound scan was performed to determine the result of the rotation, the condition of the uterus and placenta, and the condition of the fetus was carefully monitored before the onset of delivery. Control examinations were carried out every 3-4 days before the onset of childbirth.



1. Плод в тазовом предлежании



2. Придерживая плод за голову и ягодицы, врач производит наружный поворот



3. Плод в правильном положении

Scheme of external rotation of the fetus to the head at 38-39 weeks of pregnancy.

It should be noted that during or after the obstetric rotation, in no case was there a detachment of a normally located placenta or rupture of amniotic fluid. The procedure of external obstetric cephalic rotation of the fetus was effective in 60 of 74 cases (80.9%), and subsequently, the pregnancy of these women ended in physiological birth in cephalic presentation. Of these, 12 (16%) were delivered within 3 days of fetal rotation. In other cases, natural childbirth occurred at 39-40 weeks, also in cephalic presentation. In 14 patients, the external obstetric rotation was not effective due to the reverse rotation of the fetuses 4-7 days into the breech presentation and they had a birth in the breech presentation. Four of these number underwent a cesarean section due to maternal history of infertility and fetal hypoxia. The remaining 10 gave birth through the natural birth canal using Tsovyanov's manual. The weight of children born in the cephalic presentation was 3250.0 ± 230.0 g, and their condition was assessed on the Apgar scale at 8 - 9 points.

Serious complications in childbirth and the postpartum period in women in labor were also not observed. All women of this group were discharged home after childbirth with healthy children for 4-5 days. The average weight of those born in the breech presentation was 3158.0 ± 225.0 g. The condition of 7 newborns born with the breech presentation was assessed on the Apgar scale at 7-8 points and assessed as satisfactory. There were no cases of stillbirth in this group. In the comparison group, out of 60 newborns, only 58% received a satisfactory assessment (6-8 points on the Apgar scale). None of the newborns had a condition of 9-10 points. In 6% of cases, intrapartum fetal death occurred due to the protracted course of the 2nd stage of labor and the development of asphyxia during childbirth. 36% of babies were born in a serious and extremely serious condition of asphyxia and needed resuscitation. Thus, to effectively perform the procedure of external obstetric rotation during full-term pregnancy, it is necessary to strictly observe the indications, contraindications, and conditions for rotation, and also to conduct a full assessment of the fetal condition. After explanatory work, it is necessary to obtain the informed consent of the pregnant woman and her family members to conduct an external obstetric rotation. When providing information, it is necessary to explain the purpose of the procedure, the results of a successful implementation, and possible complications. At the same time, one must be prepared for possible complications and conduct natural childbirth or cesarean section in case of complications. Based on the conducted studies, we have developed an algorithm for the management and individual choice of obstetric tactics in the breech presentation of the fetus using the prophylactic external obstetric rotation of the fetus on the head.

The procedure for external obstetric rotation of the fetus in breech presentation, in our opinion, should be carried out in regional or city perinatal centers, where there are more opportunities to provide qualified care to the mother and child. The rotation

should be carried out in the maternity ward under constant ultrasound monitoring, and auscultation of the fetal heartbeat against the background of intravenous administration of antispasmodics. After rotation of the fetus on the head, the position should be fixed with the help of rollers placed on the side walls of the abdomen of the pregnant woman and observed for 3 days in the department of pathology of pregnant women. Further, after removing the fixation, it is possible to discharge home before the onset of spontaneous labor. If the results of the obstetric rotation are negative and the fetus returns to the breech presentation, if the necessary conditions are present, it is possible to repeat the rotation. As a result of the research, we have developed an algorithm for obstetric management of pregnant women with a breech presentation of the fetus, which will greatly facilitate the work of primary health care during dispensary observation of this group of pregnant women. The use of the developed algorithm will help to reduce the number of maternal and fetal complications, operative delivery, perinatal morbidity, and mortality. This algorithm gives clear indications of the timing and what research needs to be carried out, what is the individual tactics of planning childbirth, depending on the results of the research. Where and at what time of pregnancy, under what conditions on the part of the mother and fetus is it possible to perform an external obstetric rotation of the fetus on the head?

Conclusions.

The use of external obstetric rotation of the fetus on the head during full-term pregnancy (38-39 weeks) in the absence of contraindications and compliance with all conditions for the procedure is effective up to 80%, after which the fetus is born in the head presentation.

The introduction into obstetric practice of the developed algorithm for managing pregnant women with breech presentation of the fetus, individual selection of obstetric tactics and the use of external obstetric rotation during full-term pregnancy using tocolytics helps to reduce the number of abdominal deliveries and prevent a number of complications in both mothers and newborns.

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