EFFICACY OF CERVICAL PREPARATION FOR CHILDBIRTH WITH BALLOON DILATATION

Niy V.M., Kaliaskar G.K., Esmakhanova I.S., Abzhanova D.K.
Astana Medical University, the Republic of Kazakhstan

Introduction: In modern obstetrics, there is an increase in the frequency of parturition induction, which reached 20-25% [1]. Induction requires optimization of approaches to the preparation of the cervix. One of them is the use of a balloon [1, 2], which is proposed for use in case of leaking of light amniotic fluid [3].

Objective: To determine the effectiveness of balloon dilation preparation for childbirth.

Materials and methods. The material was 215 pregnant women, delivered in 2015 and 2017, in Akmola regional hospital №2, the Republic of Kazakhstan, Astana. Three groups of pregnant women were examined: group I – main – 81 women (2017), group II – comparison group – 102 (2015), preparation with balloon dilatation with intact amniotic fluid, when ineffective – prostaglandin (PG). Group III – control – 32 women, with spontaneous childbirth. The method used is a retrospective analysis.

Results: Age and parity of women in all the groups were representative. Primigravidae – 96 (45%), multigravidae – 119 (55%). Indication for the preparation of the birth canal in group I was: “immature” cervix of the uterus (63%), maturing cervix (6%), prolonged pregnancy (22%), preeclampsia (5%), hypamnion (1%), chronic arterial hypertension (3%). In group II: “immature” cervix of the uterus (29%), maturing cervix (7%), prolonged pregnancy (35%), preeclampsia (8%), hypamnion (1%), chronic arterial hypertension (15%), polyhydramnion (5%). An analysis of the history of somatic diseases revealed that in group I extragenital diseases (EGD) were: anemia – 36 pregnant women (44,5%), obesity – 7 (8,6%), kidney infection – 7 (8,6%), varicose veins of the lower extremities – 6 (7,4%), arterial hypertension – 6 (7,4%), preeclampsia – 3 (3,7%), diseases of the gastrointestinal tract (GIL) – 2 (2,5%), congenital heart disease (CHD) – 2 (2,5%), respiratory diseases – 1 (1,2%), sexually transmitted infections (STIs) (1,2%), in group II: anemia – 32...
(31.4%), kidney infection – 6 (5.9%), arterial hypertension – 6 (5.9%), varicose veins of the lower extremities – 6 (5.9%), obesity – 5 (4.9%), diseases of the respiratory system – 2 (2%), diseases of the GIT – 2 (2%), preeclampsia – 2 (2%), CHD – 2 (2%), STIs – 2 (2%), in group III: anemia – 10 (31.2%), chronic kidney infection – 2 (6.3%), varicose veins of the lower extremities – 1 (3.1%), obesity – 1 (3.1%), arterial hypertension – 1 (3.1%), STIs – 1 (3.1%).

Birth activity in group I occurred before 12 hours in 4 women in labor (5.0%), before 24 hours – in 15 (18.5%), after 1 day – in 59 (72.8%). In 35 pregnant women, which were 43.2%, pre-induction was carried out additionally with PG. In the comparison group, PG was used in 66 (64.7%). The duration of labor in all 3 groups did not differ. Cesarean section in group I was in 5 cases: in 2 (40%) – fetal distress, in 2 (40%) – disproportion of the fetal head to the mother’s pelvis and 1 (20%) – chorioamnionitis. In the comparison group, in 8 cases (7.8%), the operation was cesarean section according to the indications: in 7 (87.5%) – an anomaly of labor and in 1 case (12.5%) fetal distress. All newborns were born alive. In the main group, one newborn had severe asphyxia (4/6 points in Apgar), weakness of period II, episiotomy. In the second group – dystocia of the shoulders in 1 newborn. The postpartum period in all puerperas proceeded without features, they were discharged on the 2nd-4th days.

Thus, balloon dilatation reduces the use of PG by 1.5 times, reduces the frequency of cesarean section by 1.3 times. A careful approach to the indications of preparation of a pregnant woman is necessary taking into account the conditions: an intact fetal bladder, the condition of the vagina.

**Prospects for further research:** use of balloon dilatation in case of leaking of amniotic fluid for the preparation of the organism for childbirth in full-term pregnancy.

**References:**
2. Протокол МЗ РК №17 от 08.12.2016г. «Индукция родов (подготовка шейки матки к родам и родовозбуждение)).

Accepted for printing on 27 Oct. 2017