

УДК 618.36–007.4:618.146–089.84

Поступила 23.10.2014

M. V. MAKARENKO<sup>1,2</sup>, D. O. GOVSEYEV<sup>1,2</sup>, L. M. GORODNYCHA<sup>2</sup>,  
R. M. VORONA<sup>1,2</sup> (Kyiv, Ukraine)

### THE EFFECTIVENESS IMPOSING CIRCULAR SEAM ON THE CERVIX WITH THE MERSILENE THREAD IN CASE OF THE PLACENTA PREVIA

<sup>1</sup>Bogomolets National Medical University, Obstetrics and Gynaecology department of Postgraduate Education's Institute; <sup>2</sup>Kyiv maternity hospital N 5 <nm@proffkom.com>

*The authors have compared the effectiveness of circular suturing of the cervix with the mersilene to the conservative therapy in case of the placenta previa. Nowadays an issue of management of the pregnant women with the placental previa still remains undefined, though this pathology leads to severe complications in obstetrics and neonatology.*

**Key words:** placenta previa, circular suturing of the cervix with the mersilene, preterm birth, hemorrhage with subsequent blood transfusion.

The placenta is naturally attached within the body of the uterus and lacks 7–8 cm or more to touch the internal os with its inferior border. Placenta previa is an abnormal placental positioning when it is attached within the lower uterine segment. At the same time certain part of the placenta is located in the internal os of the uterus, partially or completely overlaying it. In this case the placenta is positioned below the presenting part of the fetus, e. g. it intersects the birthway.

Authors evidence about 0.2–0.6 % of the placenta previa cases among all pregnancies [1]. This occurs in 2.8 cases per 1000 singlet pregnancies and 3.9 cases per 1000 multiple pregnancies [2]. The placenta previa real occurrence exceeds the offered figures, which is confirmed by the ultrasound examination data, obtained in early pregnancy. Many spontaneous abortions occur due to low placentation (placenta previa).

The maternal mortality in case of the placenta previa ranges from 0 to 0.9 %, and as various authors state, premature births have been detected in 20 % of the cases [1].

The mentioned studies contain controversial data on the effectiveness of the circular suturing of the cervix in case of the placenta previa. Thus, Cobo E. et al circularly sutured the cervix of 19 women with placenta previa within the period of the 24<sup>th</sup>–30<sup>th</sup> weeks of gestation (group 1), and 20 other women were administered the conservative therapy (group 2). The authors haven't found any reliable difference in pregnancy prolongation, incidence of hemorrhage with subsequent blood transfusion, fetus body weight at birth and hospital pregnancy costing between the two studied groups. E. Cobo et al. [3] don't consider the circular suturing of the cervix as an alternative treatment method in case of placenta previa.

According to L. Oppenheimer [4], there are many evidences in favor of the circular suturing of the cervix, aimed at prevention of hemorrhage and preterm births.

Opposing this view, J. P. Neilson [5] examined 114 women with placenta previa, and his study results confirm that the circular suturing of the cervix decreases the risk of preterm birth before the 34<sup>th</sup> week of gestation, giving birth to a child weighing less than 2 kg and low Apgar score.

After 12 weeks of pregnancy, the isthmus begins to expand gradually, thus shaping a lower segment, which reaches 10 cm in height at full-term pregnancy. Therefore, suturing the cervix in case of the placenta previa should reduce the risk of preterm birth.

**Study aim.** The aim of the study was to analyze the effect of circular suturing of the cervix with the mersilene in case of placenta previa diagnosed by ultrasound examination starting from the 20<sup>th</sup> week of gestation, compared to the conservative therapy.

The following criteria were analyzed:

- Body weight at birth;
- Apgar score of the newborn;
- Gestation term at birth;
- The term of the newborns' in-patient stay;
- Incidence of hemorrhages with subsequent blood transfusion.

**Methods and materials used.** The paper includes the post evaluation analysis of 167 cases of placenta previa diagnosed by ultrasound examination in women after the 20<sup>th</sup> week of gestation. The study was conducted in the Kyiv maternity hospital № 5 in 2011–2015. The age of the women ranged from 18 to 43 years (the average child-bearing age is 25.7 years). 76 of them were primipara, 75 – duipara; 16 women – multipara. The pregnant women were grouped randomly as follows: group I included 83 women who were administered conservative therapy; group II included 84 women who underwent the procedure of circular suturing of the cervix with the mersilene in the period from the 20<sup>th</sup> till the 28<sup>th</sup> week of gestation.

**Results.** The first group was characterized with the weight of the new-borns averaging (2320 ± 200) grams; the Apgar score of the new-borns at one minute after birth made up 5.3 points, at 5 minutes after birth – 6.7 points; the gestational age at childbirth made up 22–38 weeks (mean average – 33.4 weeks). The term of hospital stay averaged 17.6 days; there were registered 7 cases of haemorrhage with the subsequent blood transfusion.

The second group was characterized with the weight of the new-borns averaging (2910 ± 200) grams; the Apgar score of the new-borns at one minute after birth made up 6.5 points, at 5 minutes after birth – 7.4 points; the gestational age at childbirth made up 29–38 weeks (mean average – 36.2 weeks). The term of hospital stay averaged 11.2 days; there were registered two cases of hemorrhage with the subsequent blood transfusion.

**Studied characteristics in both groups**

Characteristics	Group 1		Group 2	
Body weight of the new-born. gr	2320 ± 200		2910 ± 200	
Apgar score at one and five minutes after birth, points	5.3	6.7	6.5	7.4
Gestational term at birth, weeks	33.4		36.2	
Term of hospital stay, days	17.6		11.2	
Incidence of hemorrhages with subsequent blood transfusion	7		2	

**Conclusions.** The study proves the effectiveness of circular suturing of the cervix with the mersilene. Although many authors haven't found any correlation between the conservative therapy and the cerclage, the presented study noted the decrease in incidence of hemorrhages with subsequent blood transfusion, the reliable increase of the new-borns' bodyweight, which leads to decreased term of hospital stay of the children. Under the circumstances of financial crisis, these “extra” days of gestation save enormous money which may be redistributed to the other spheres of neonatology. This is why the authors are sure that any method which will be effective in prolonging pregnancy must be applied. So, the priority of the prevention of preterm birth is essential in the obstetrics.

#### References

1. Савельева Г. М., Кулаков В. И., Стрижаков А. Н. и др. *Акушерство: Учеб. для студентов мед. вузов / Под ред. М. Савельевой.* – М.: Медицина, 2000. – 555 с.

2. *Ananth C. V., Demissie K., Smulian J. C., Vintzileos A. M.* Placenta previa in singleton and twin births in the United States, 1989 through 1998: a comparison of risk factor profiles and associated conditions // *Am. J. Obstet. Gynecol.* – 2003. – Vol. 188, N 5. – P. 1299–1304.
3. *Cobo E., Conde-Agudelo A., Delgado J.* et al. Cervical cerclage: an alternative for the management of placenta previa // *Am. J. Obstet. Gynecol.* – 1998. – Vol. 179, N 1. – P. 122–125.
4. *Oppenheimer L.* Diagnosis and management of placenta previa // *Society of Obstetricians and Gynaecologists of Canada.* – 2007. – Vol. 29, N 3. – P. 261–273.
5. *Nelson J. P.* Interventions for suspected placenta praevia (Cochrane review) // *In The Cochrane Library.* – Oxford: Update software, 2004. – Issue 2. – P. 35–39.

#### ЭФФЕКТИВНОСТЬ НАЛОЖЕНИЯ ЦИРКУЛЯРНОГО ШВА МЕРСИЛЕНОВОЙ НИТЬЮ ПРИ ЦЕНТРАЛЬНОМ ПРЕДЛЕЖАНИИ ПЛАЦЕНТЫ

*М. В. Макаренко, Д. А. Говсеев, Л. Н. Городничая, Р. М. Ворона (Киев)*

Проведено сравнение эффективности наложения циркулярного шва на шейку матки мерсиленовой нитью и результатов консервативной терапии при центральном предлежании плаценты. До настоящего времени не решён вопрос о тактике ведения беременных с центральным предлежанием плаценты, хотя эта патология сопровождается тяжёлыми осложнениями в акушерстве и неонатологии.

**Ключевые слова:** центральное предлежание плаценты, циркулярный шов на шейку матки мерсиленовой нитью, преждевременные роды, кровотечение с последующим переливанием компонентов крови.

#### ЕФЕКТИВНІСТЬ НАКЛАДАННЯ ЦИРКУЛЯРНОГО ШВА МЕРСИЛЕНОВОЮ НИТКОЮ ПРИ ЦЕНТРАЛЬНОМУ ПЕРЕДЛЕЖАННІ ПЛАЦЕНТИ

*М. В. Макаренко, Д. О. Говсеев, Л. М. Городнича, Р. М. Ворона (Київ)*

Прведено зіставлення ефективності накладання циркулярного шва на шийку матки мерсиленовою ниткою з результатами консервативної терапії при центральному передлежанні плаценти. Нині залишається не вирішеним питання щодо тактики ведення вагітних жінок з центральним передлежанням плаценти, незважаючи на те, що ця патологія призводить до тяжких ускладнень в акушерстві та неонатології.

**Ключові слова:** центральне передлежання плаценти, циркулярний шов на шийку матки мерсиленовою ниткою, передчасні пологи, кровотеча з наступним переливанням компонентів крові.