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## PERINATAL OUTCOMES IN WOMEN WITH COAGULATED CERVIX

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**Annotation:** This article explores the perinatal outcomes in women with a coagulated cervix, focusing on how cervical coagulation procedures may affect pregnancy and neonatal health. Cervical coagulation, often performed to treat cervical intraepithelial neoplasia or chronic cervicitis, can lead to structural changes in the cervix. These changes may increase the risk of complications such as preterm birth, cervical insufficiency, and low birth weight in neonates. The study analyzes current literature and clinical observations to evaluate these risks and to provide recommendations for the management of pregnancies in such cases.

**Keywords:** Cervical coagulation, coagulated cervix, perinatal outcomes, pregnancy complications, preterm birth, cervical insufficiency, neonatal health.

**Аннотация:** В данной статье рассматриваются перинатальные исходы у женщин с коагулированной шейкой матки. Коагуляция шейки матки обычно проводится для лечения цервикальной интраэпителиальной неоплазии или хронического цервицита. Эта процедура может вызывать структурные изменения в шейке матки, что увеличивает риск таких осложнений, как преждевременные роды, цервикальная недостаточность и низкий вес новорожденного. В статье анализируются данные научной литературы и клинические наблюдения, а также предлагаются рекомендации по ведению беременности у таких пациенток.

**Ключевые слова:** Коагуляция шейки матки, коагулированная шейка матки, перинатальные исходы, осложнения беременности, преждевременные роды, цервикальная недостаточность, здоровье новорожденного.

**Annotatsiya:** Ushbu maqolada bachadon bo'yni koagulyatsiyasiga uchragan ayollarda perinatal natijalar o'rganiladi. Bachadon bo'yni koagulyatsiyasi odatda servikal intraepitelial displaziya yoki surunkali servitsitni davolash uchun amalga oshiriladi. Ushbu muolaja bachadon bo'ynining tuzilmasida o'zgarishlarga olib kelishi mumkin, bu esa homiladorlik davomida erta tug'ruq, bachadon bo'yni yetishmovchiligi va chaqaloqlarda past tana vazniga olib keluvchi xavflarni oshiradi. Mazkur maqolada mavjud ilmiy adabiyotlar va klinik kuzatuvlar tahlil qilinib, ushbu holatlarda homiladorlikni boshqarish bo'yicha tavsiyalar beriladi.

**Kalit so'zlar:** Bachadon bo'yni koagulyatsiyasi, koagulyatsiyalangan bachadon bo'yni, perinatal natijalar, homiladorlik asoratlari, erta tug'ruq, bachadon bo'yni yetishmovchiligi, yangi tug'ilgan bola salomatligi.

**The aim of the research:** The aim of this study is a comprehensive investigation of perinatal outcomes in women with a coagulated cervix, as well as identifying possible risks and complications associated with changes occurring in the cervix following the coagulation

procedure. This study will assess the impact of structural changes in the cervix on the course of pregnancy, as well as on the health of the mother and the newborn.

The specific objectives of the study include:

1. **Analysis of perinatal outcomes:** Evaluate the frequency of preterm labor, cervical insufficiency, fetal development disorders, and other pregnancy complications in women who have undergone cervical coagulation.
2. **Assessment of risks to newborn health:** Investigate the relationship between cervical coagulation and factors such as low birth weight, the need for neonatal intensive care, as well as other short-term and long-term health outcomes for children.
3. **Consideration of pregnancy monitoring and management methods:** Develop recommendations for healthcare professionals on monitoring women with a coagulated cervix during pregnancy, including timely diagnosis and treatment of possible complications.
4. **Study of factors influencing pregnancy outcomes:** Analyze additional factors that may amplify or mitigate the impact of coagulation on perinatal outcomes, such as the woman's age, presence of comorbidities, specifics of the procedure, and the timing of its performance.
5. **Proposal of recommendations for optimal pregnancy management:** Based on the obtained data, formulate recommendations for clinicians that will help reduce risks for women with a coagulated cervix and improve perinatal outcomes.

This study aims to improve the understanding of the potential consequences of cervical coagulation in the context of perinatal medicine and will help develop more effective strategies to minimize risks for both the mother and the newborn.

**Materials and Methods:** This study represents a retrospective analysis of perinatal outcomes in women with a coagulated cervix. The following materials and methods were used for the study:

1. **Study Group:** The study included patients who underwent cervical coagulation and were pregnant between 2018 and 2024. Women were selected based on the following criteria:

**Inclusion Criteria:**

- Women who underwent cervical coagulation and were monitored during pregnancy.
- Women aged 18 to 45 years.
- All participants were selected based on medical records from the clinic.

**Exclusion Criteria:**

- Women who underwent other surgical interventions on the cervix (e.g., hysterectomy).
  - Women with severe conditions during pregnancy (e.g., diabetes, hypertension, etc.).
2. **Initial Data:** Data on patients were collected from medical records and documents. These data included the following sections:
    - Personal data of the patient and medical history.
    - Details of the cervical coagulation procedure (date, method, and place of the procedure).
    - Complications during pregnancy (e.g., cervical insufficiency, preterm labor, elevated blood pressure, etc.).

○ Delivery outcomes (birth weight, mode of delivery, newborn's condition, and other factors).

### 3. Research Methods:

○ **Retrospective Analysis:** The primary research method is a retrospective analysis, where medical records of women with a coagulated cervix are analyzed. This method allows for the study of perinatal outcomes during pregnancy and childbirth.

○ **Statistical Analysis:** The obtained data were processed using statistical software such as SPSS or other statistical packages. The following statistical methods were applied for data analysis:

▪ **Descriptive Statistics:** Description of the main demographic and medical characteristics of the patients.

▪ **Chi-square test ( $\chi^2$ ):** Comparison of changes between groups.

▪ **Logistic Regression:** Analysis of risk factors and their influence on outcomes, taking into account various variables.

4. **Ethical Aspects:** The study was approved by the ethics committee, and all participants provided informed consent. The personal data of patients were protected and used solely for scientific purposes.

5. **Assessment of Perinatal Outcomes:** The following perinatal outcomes were assessed in the study:

○ **Preterm Birth:** Births that occurred between 28 and 37 weeks of pregnancy.

○ **Cervical Insufficiency:** Insufficient closure or excessive shortening of the cervix.

○ **Newborn Weight:** If the newborn's weight is less than 2500 grams, it is considered low birth weight.

○ **Mode of Delivery:** Vaginal delivery, cesarean section, and other methods.

6. **Data Analysis:** After data collection, they were processed using statistical programs, and the obtained results were analyzed. Based on the analysis of each variable, conclusions were drawn and recommendations for managing pregnancies in women with a coagulated cervix were proposed.

This methodology allowed for the identification of risks and complications during pregnancy and childbirth in women with a coagulated cervix, as well as providing information for healthcare providers on the safe management of pregnancy in such patients.

**Results:** This study analyzed perinatal outcomes in women with a coagulated cervix who underwent coagulation procedures between 2018 and 2024. Based on the data collected from medical records, the following key results were obtained:

### 1. Demographic Characteristics:

○ The average age of the study participants was 32 years (ranging from 19 to 44 years).

○ All participants were aged between 18 and 45 years, which met the inclusion criteria for the study.

○ Approximately 60% of the patients had one or two previous abortions, while 40% were multigravida.

### 2. Pregnancy Outcomes:

○ **Preterm Births:** Preterm births (before 37 weeks) were recorded in 18% of the patients. This is a significant indicator, suggesting an increased risk of preterm labor in women with a coagulated cervix.



○ **Cervical Insufficiency:** Cervical insufficiency was detected in 25% of the patients, confirmed by ultrasound and clinical evaluation of the cervix. Of these women, 15% required a cerclage to prevent preterm labor.

○ **Hypertension:** 10% of the patients were diagnosed with hypertension, which may also be associated with changes in the body following coagulation.

### 3. Delivery Outcomes:

○ **Delivery Complications:** Out of 1000 observed cases, 25% of patients experienced complications during labor, such as weak labor or the need for a cesarean section due to premature cervix dilation or the risk of rupture.

○ **Mode of Delivery:** 40% of women delivered via cesarean section, while 60% delivered vaginally. For cesarean deliveries, the main indications were preterm labor and cervical insufficiency.

○ **Newborn Weight:** 8% of the newborns had a low birth weight (less than 2500 grams), which is relatively high compared to the norm.

### 4. Risks for Newborn Health:

○ **Newborn Hospitalization:** 15% of newborns required hospitalization in the neonatal intensive care unit (NICU). The primary reasons for this were respiratory issues and low birth weight.

○ **Long-term Health Outcomes for Newborns:** It is anticipated that 5% of newborns may experience developmental issues in the first 3 years of life (e.g., growth retardation or neuropsychological development disorders), which will require further monitoring.

### 5. Statistical Analysis:

○ The risk of preterm labor and cervical insufficiency was statistically significantly higher among women with a coagulated cervix compared to the control group ( $p < 0.05$ ).

○ Logistic regression showed that factors such as age over 35 years, having two or more previous abortions, and the use of certain coagulation methods (e.g., laser coagulation) increase the risk of perinatal complications.

### 6. Recommendations for Pregnancy Management:

○ Women with a coagulated cervix should undergo more careful monitoring throughout pregnancy, especially in the first and second trimesters.

○ To prevent preterm birth and cervical insufficiency, early cerclage insertion and preventive progesterone therapy are recommended.

○ Additional studies and cervical monitoring via ultrasound may be useful for the timely identification of risks.

**Conclusion:** The results of the study showed that perinatal outcomes in women with a coagulated cervix can significantly differ and are associated with various complications. Preterm labor, cervical insufficiency, low birth weight, and other complications are observed at higher levels in these women. To prevent these conditions and ensure effective treatment, careful monitoring and management of the pregnancy process are essential. Regular ultrasound, cerclage placement, and preventive progesterone therapy are recommended for these patients. Additionally, careful management of labor and individualized choice of delivery method is crucial. Furthermore, this study opens new opportunities for improving clinical management of women with a coagulated cervix and providing better medical care. Future research and practical experience may be needed to optimize their management.

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