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Research Article

IMPROVING THE DIAGNOSTICS OF UTERUS SCAR AFTER CESAREAN SECTION

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Kurbaniyazova Venera Enverovna
Samarkand State Medical University, Samarkand, Uzbekistan

Kurbaniyazova Feruza Zafarjanovna
Samarkand State Medical University, Samarkand, Uzbekistan

ABSTRACT

Around the world, the number of caesarean sections is increasing every year. The purpose of the study was to study the consistency of the uterine scar after cesarean section in pregnant women of reproductive age; 103 pregnant women and the outcomes of their births were studied. Research and scientific work were carried out for 2020-2022. on the basis of the obstetric department of the multidisciplinary clinic of SamSMU. Based on clinical data, objective examination, ultrasound and Doppler measurements, as well as the amount of collagen type XXVI, in 66 pregnant women the condition of the postoperative scar was assessed as satisfactory and in 37 as insolvent.

KEYWORDS

Viability criteria, uterine scar, cesarean section (CS), type XXVI collagen.

INTRODUCTION

Around the world, the number of caesarean sections is increasing every year. This is influenced by the rapid development of modern medical science, the improvement of surgical techniques, the emergence of new suture materials and broad-spectrum antibiotics, the improvement of anesthesiological care, as well as changes in society's attitude towards childbirth.

Caesarean section (CS) is an operative method of delivery that is widely used at the moment. According to the Ministry of Health for 2022, we registered 932.2

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thousand births, which is the highest figure since independence. The total fertility rate (number of births per 1,000 inhabitants) was 26.2 – in 2022, which falls into the category of countries with a "moderately high" fertility rate. The frequency of surgical births in Uzbekistan is about 23% of all births. According to statistics from the Republic of Uzbekistan for 2017-2022, from 5100 to 5897 women per year give birth surgically, and the number of women with a uterine scar increased from 568 to 618, with the predominant number of women with one scar. The majority of women who completed childbirth through CS corresponded to district medical associations. Among them, primiparous women ranged from 10.5% to 17.7%. During pregnancy, 77.2% of women had various somatic diseases, such as: obesity, myopia, chronic pyelonephritis, chronic gastritis, anemia, hypertensive conditions, neurocirculatory dystonia, hydronephrosis, varicose veins. In 92.3% of those who underwent a CS, repeated births ended with a repeat cesarean section with removal of the postoperative scar. And only 7% of women with one uterine scar were delivered through the vaginal canal during repeated births. This shows the need to study the reasons for the increase in CS, improve the diagnostics of consistency and development.

Purpose of work was to study the consistency of the uterine scar after cesarean section in pregnant women of reproductive age.

Materials and methods. The study is based on a clinical and laboratory examination of 103 women of reproductive age with a history of one uterine scar, who were under observation in the department of obstetrics and gynecology of the multidisciplinary clinic of Samarkand State Medical University for the period from 2020 to 2022. During clinical and laboratory examination, pregnant women were divided into 2 groups: Group I - with a stable scar (n=66), Group II with an incompetent scar (n=37). Each of these groups was divided into subgroups according to birth outcomes: "A" - with natural birth, "B" - birth by cesarean section. Also, 68 postpartum women were included in the main group for rehabilitation, and the remaining 35 were included in the comparison group for clinical assessment of the condition of the scar in the postoperative period and rehabilitation.

The work used general clinical research methods (general blood and urine analysis, vaginal smear, assessment of hemostasis), as well as special research methods, including: laboratory research methods (determining the amount of type XXVI collagen by ELISA, morphological examination of the scar area), instrumental methods (ultrasound, Dopplerometry of uterine vessels).

Variation-statistical processing of the study results was carried out using the Statistica 6.0 program, determining the main indicators of variation: mean value (M), mean errors (m), standard deviation (p). The

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reliability of the results obtained was determined using the Student's test. The difference between two means is considered significant if the p-parameter is less than 0.05. The confidence level was at least 95%.

Results. Research and scientific work was carried out for 2020-2022. on the basis of the obstetric department of the multidisciplinary clinic of SamSMU, based on the analysis of the results of a comprehensive examination and dynamic observation of 103 women of reproductive age with one scar on the uterus after cesarean section, during pregnancy and in the postpartum period. The age of the women ranged from 18 to 40 years, the average age was 24.5±4.1 years.

Criteria for inclusion in the study:

- written consent of pregnant women;
- pregnant women with one scar on the uterus after one caesarean section in history
- gestational age 37 weeks or more at the time of previous caesarean section

Exclusion criteria from the study:

- pregnant women with scars on the uterus after two or more caesarean sections;
- use of T- and J-type incisions on the uterus during a previous caesarean section
- History of uterine rupture;
- primary reconstructive operations on the uterus, resection of the uterine angle, myomectomy and other gynecological operations
- the presence of other severe obstetric or extragenital pathology in the acute stage.
- Oncological diseases of various localizations or high-risk groups

The intergravid period of pregnant women (from the last CS operation to the current pregnancy) ranged from 1 to 3 years (on average 1.8±0.8 years).

After the first CS, the average levels of collagen type XXVI did not differ in both groups during the second pregnancy, but after delivery its indicator showed significant changes in the two groups. Thus, in subgroup IA, the concentration of type XXVI collagen was 322.28±34.5 ng/ml; upon re-examination 3 months after birth, a significant decrease in the average concentration of type XXVI collagen was noted, which amounted to 164.12±6.25 ng/ml.

The average concentration of type XXVI collagen in the main group during pregnancy was 328.22±17.5 ng/ml, and 3 months after birth - 363.1±48.4 ng/ml. This indicates the effectiveness of rehabilitation procedures. The data obtained show that collagen type XXVI can be taken as a predictor of the choice of method of delivery.

In pregnant women with a uterine scar after CS, the main criteria for scar failure on ultrasound were

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deformation of the uterine cavity in the area of the sutures, the presence of local folds and visualization of the "niche" symptom in the area of the postoperative scar.

37 pregnant women had an echo picture of the uterine scar, characterized by the presence of atrophy and the formation of a thin fibrous cover, a defect in the uterine wall in the area of the scar, and inadequate blood circulation along the scar. Uterine hypertonicity in both study groups was 55.88% and 57.14%, respectively; other pathological findings are reflected in Figure No. 1.

Although 22.86% of pregnant women of the main group and 19.11% of the comparison group were diagnosed with echo signs of placental insufficiency, 11.42% and 11.76% of umbilical cord entanglement, 14.28% and 14.7% were diagnosed with ORP, this is not always directly related with a uterine scar or a history of CS, which is confirmed by statistical data.

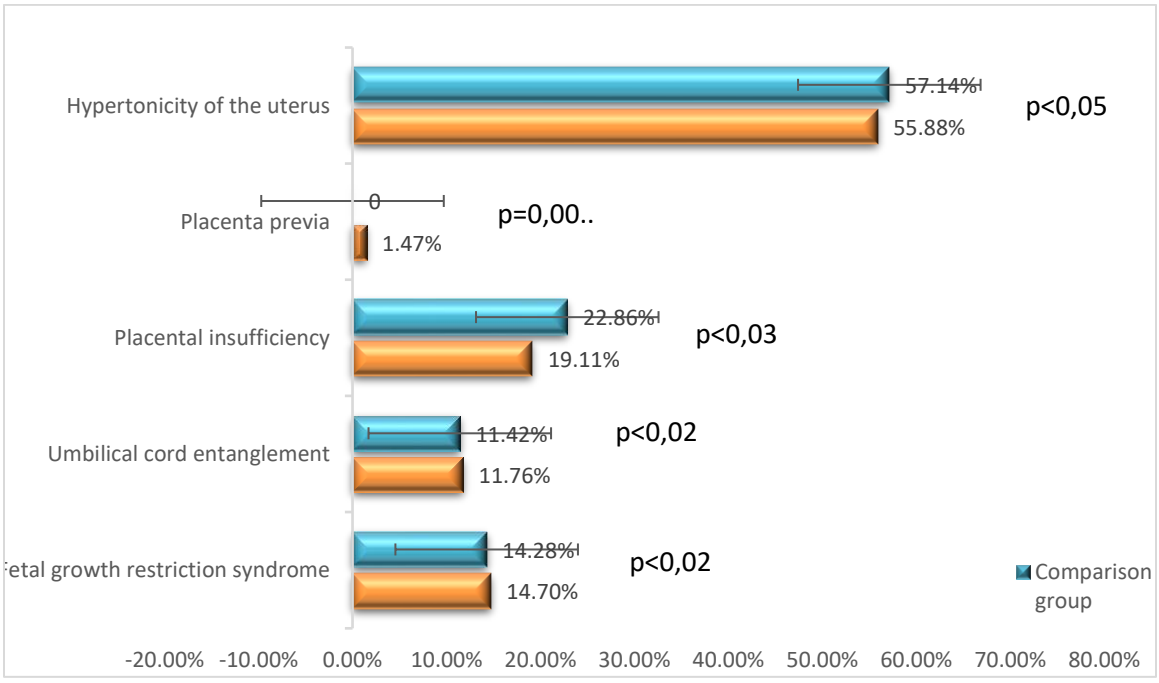

Figure 1. Ultrasound data in the studied women (%)

According to ultrasound data, in 66 pregnant women the presence of various elements located between full-blooded capillaries and small-caliber capillaries was revealed, indicating the "consistency" of the uterine scar.

According to the study data, at a period of 36-38 weeks, pregnant women were divided into 2 groups

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(Group I - 66 pregnant women with a clinically "successful" scar, Group II - 37 pregnant women with an incompetent scar), based on the delivery data, each of the groups was divided into 2 subgroups (A - with natural birth, B - delivery by cesarean section): Group I - 66 women with a clinically "significant" uterine scar, admitted as planned. Group II consisted of 37 pregnant women who were diagnosed with uterine incompetence and recommended for cesarean section. But according to the birth outcomes, they were also divided into 2 subgroups: Subgroup II A included 13 women who were recommended for a cesarean section, which they refused and were admitted at 38 weeks or more in the second stage of labor and had a natural delivery; Subgroup II B consisted of 24 women with clinical signs of uterine scar failure, who underwent repeat CS surgery as recommended.

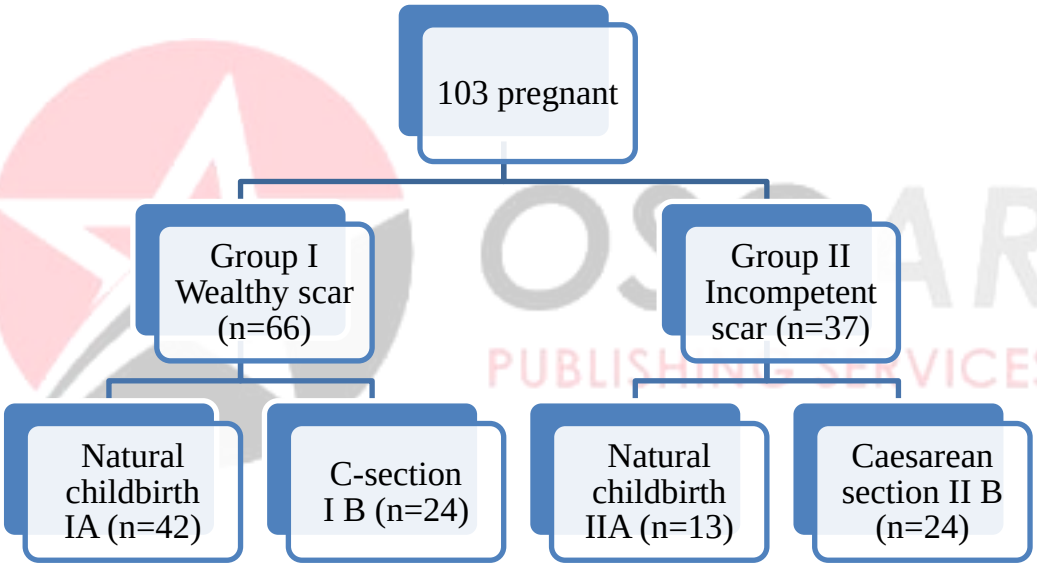

Figure 2. Distribution of pregnant women according to the condition of the postoperative scar

Conclusion

Based on clinical data, objective examination, ultrasound and Doppler measurements, as well as the amount of collagen type XXVI, in 66 pregnant women the condition of the postoperative scar was assessed as satisfactory and in 37 as insolvent.

REFERENCES

1. Жаркин Н. А., Логутова Л. С., Семихова Т. Г. Кесарево сечение: медицинские, социальные и морально-этические проблемы //Rossiiskii Vestnik Akushera-Ginekologa. – 2019. – Т. 19. – №. 4.

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SJIF IMPACT FACTOR (2021: 5. 694) (2022: 5. 893) (2023: 6. 184)
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2. Курбаниязова В. Э. Ранняя реабилитация женщин, перенесших кесарево сечение, и оптимизация ведения последующих родов //Достижения науки и образования. – 2020. – №. 2 (56). – С. 106-109.
3. Курбаниязова В. Э., Худоярова Д. Р. Реалии Времени. Реабилитация Женщин С Рубцом На Матке //Вестник науки и образования. – 2020. – №. 23-1 (101). – С. 72-78.
4. Курбаниязова В. Э. КРИТЕРИИ ОЦЕНКИ СОСТОЯТЕЛЬНОСТИ ПОСЛЕОПЕРАЦИОННОГО РУБЦА И РЕАБИЛИТАЦИЯ ЖЕНЩИН, ПЕРЕНЕСШИХ КЕСАРЕВО СЕЧЕНИЕ //Перенесших Кесарево Сечение.
5. Курбаниязова В. Э., Ахтамова Н. А., Хамидова Ш. М. Интенсивное восстановление женщин репродуктивного возраста перенесших операцию Кесарево сечение //Проблемы биологии и медицины. – 2019. – Т. 4. – С. 53-55.
6. Курбаниязова В. Э. CLINICAL, ECHOGRAPHIC, MORPHOLOGICAL AND IMMUNOLOGICAL CRITERIA FOR EVALUATING A WELL-FOUNDED SCAR ON THE UTERUS AFTER CESAREAN SECTION //УЗБЕКСКИЙ МЕДИЦИНСКИЙ ЖУРНАЛ. – 2021. – №. SPECIAL 1.
7. Лебеденко Е. Ю. и др. Кесарево сечение-мировые тенденции (обзор литературы) //Архив акушерства и гинекологии им. ВФ Снегирева. – 2021. – Т. 8. – №. 1. – С. 20-25.
8. Мартынов С. А., Адамян Л. В. Рубец на матке после кесарева сечения: терминологические аспекты //Гинекология. – 2020. – Т. 22. – №. 5. – С. 70-75.
9. Ножницева О. Н., Семенов И. А., Беженарь В. Ф. Рубец на матке после операции кесарева сечения и оптимальный алгоритм диагностики его состояния //Лучевая диагностика и терапия. – 2019. – №. 2. – С. 85-90.
10. Ножницева О. Н., Беженарь В. Ф. Ниша рубца на матке после кесарева сечения-новая проблема репродуктивного здоровья женщины //Журнал акушерства и женских болезней. – 2020. – Т. 69. – №. 1. – С. 53-62.
11. Сафоева З. Ф., Хусаинова Ш. К., Умарова С. С. Сравнительная оценка неврологической симптоматики у новорожденных, рожденных естественным путем и путем операции кесарева сечения //Достижения науки и образования. – 2021. – №. 1 (73). – С. 53-57.
12. Ткаченко Л. В. и др. Применение классификации Робсона для поиска путей снижения частоты операций кесарева сечения //Вестник Волгоградского государственного медицинского университета. – 2020. – №. 2 (74). – С. 87-90.

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OCLC – 1121105677
Publisher: Oscar Publishing Services

13. Яметова Н. М., Цхай В. Б., Домрачева М. Я. Повторная операция кесарева сечения у женщин с двумя и более рубцами на матке //Медицинский вестник Юга России. – 2021. – Т. 12. – №. 3. – С. 86-91.
14. Antoine C., Young B. K. Cesarean section one hundred years 1920–2020: the Good, the Bad and the Ugly //Journal of Perinatal Medicine. – 2021. – Т. 49. – №. 1. – С. 5-16.
15. Betran A. P. et al. Trends and projections of caesarean section rates: global and regional estimates //BMJ Global Health. – 2021. – Т. 6. – №. 6. – С. e005671.
16. Cai J. et al. Cesarean section or vaginal delivery to prevent possible vertical transmission from a pregnant mother confirmed with COVID-19 to a neonate: a systematic review //Frontiers in medicine. – 2021. – Т. 8. – С. 634949.
17. Enverovna K. V. MODERN APPROACHES TO THE MANAGEMENT OF PREGNANT WOMEN WITH UTERINE SCARS AND DELIVERY TACTICS IN THEM //Science and innovation. – 2023. – Т. 2. – №. D4. – С. 154-160.
18. Enverovna K. V. MODERN APPROACHES TO THE MANAGEMENT OF PREGNANT WOMEN WITH UTERINE SCARS AND DELIVERY TACTICS IN THEM //Science and innovation. – 2023. – Т. 2. – №. D4. – С. 154-160.
19. Enverovna K. V. RELATIONSHIP OF POSTOPERATIVE SCAR ON THE UTERUS AND TYPE II COLLAGEN //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2023. – Т. 8. – №. 3.
20. Nagy S., Papp Z. Global approach of the cesarean section rates //Journal of Perinatal Medicine. – 2021. – Т. 49. – №. 1. – С. 1-4.
21. Sung S., Mahdy H. Cesarean section //StatPearls [Internet]. – Statpearls publishing, 2023.
22. 22. Wu Y. et al. Factors associated with successful vaginal birth after a cesarean section: a systematic review and meta-analysis //BMC pregnancy and childbirth. – 2019. – Т. 19. – №. 1. – С. 1-12.