

Post-Childbirth Injuries to the Perineum and their Restorative Treatment Methods

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ARTICLE INFO

ABSTRACT

2025 Volume 2

<https://www.doi.org/ccrcr.2025.tgc.0362>

Article History:

Received: Aug 2, 2025

Accepted: Oct 20 12, 2025

Published: Nov 22, 2025

Citation: Konstantin A. B. (2025).

Post-Childbirth Injuries to the Perineum and their Restorative Treatment Methods. *Chronicles of Clinical Reviews and Case Reports*, The Geek Chronicles, 1, 1-5.

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Keywords: female patients; perineal injuries; non-drug restorative treatment; rehabilitation.

Annotation

This article presents the materials of the author's study, devoted to the practical application of the author's version of restorative treatment and rehabilitation in patients who have undergone traumatic childbirth, with the presence of perineal ruptures, from the 1st to the 3rd degree. The author, in this article, provides an approximate set of methods and means of non-drug restorative treatment and rehabilitation, clearly substantiates and describes the features of the practical application of the author's methods aimed at restoring and strengthening the tissues of the perineum and, in particular, the pelvic floor and all its structural elements. Also, practical recommendations are given on the use of therapeutic exercise, special physical exercises, both at the outpatient stage of restorative treatment, and at the sanatorium-resort stage of rehabilitation, as well as at home.

Aim of the article

The purpose of the conducted research and the subsequent writing of this research article based on the results obtained is to present one of the possible options for combined, non-drug restorative treatment of the consequences of traumatic childbirth, with the presence of perineal ruptures, from the first to the third degree of complexity, at different stages of patient rehabilitation.

Research hypothesis

In the process of preparation for this study, its author put forward a working hypothesis, the essence of which was that in practical activities, it is possible to practically apply a combined method consisting of a set of methods and means, non-drug, restorative treatment, having a positive rehabilitation effect in patients who have suffered perineal ruptures during childbirth, of varying severity.

Method and materials of the study

When the author conducted the research and subsequently wrote the presented research article based on the results obtained, the following research methods were used: literary-critical analysis of available scientific and scientific-methodical literature on the issue being studied.

Introduction

According to the data of available sources of information, the frequency of birth trauma of perineal tissues does not tend to decrease and, according to domestic and foreign authors, is 10.2-39% [3]. Perineal ruptures of the third degree range from 0.4 to 5% [4]. It has been proven that inadequate healing of perineal wounds leads to weakening of the vulvar ring, pelvic floor muscles, subsequently leading to the occurrence of cicatricial deformation of the vulva, gaping of the genital slit, prolapse and loss of pelvic organs, disruption of their function and trophism (M.E. Selikkhova, M.V. Kotovskaya, 2009; S.G. Sultanova, 2010). Much attention is paid to the problems of perineal injuries as components of birth trauma, rehabilitation and restorative treatment of women in labor in the works of such authors studying this problem as O.G. Pavlov, 2008; H.N. Musaev, N.N. Akhundova, 2009; M.S. Sablikova, M.V. Kotovskaya, L.N. Kugutova, 2010; M.A. Kucherenko, 2010; E.A. Aliev, S.G. Sultanova, A.G. Abbasov, 2011; M.G. Shneiderman, T.A. Teterina, I.A. Apolikhina, 2013; T.B. Malanova, M.V. Ipatova, Yu.V. Kubit kaya, Loktionov S.V., 2013; O.I. Soyменова, 2014.

Results of the Study and Discussion

The study on the application and effectiveness of the proposed approximate set of rehabilitation methods and means, during the restorative treatment of patients with grade I-III perineal ruptures received during childbirth, was conducted at the antenatal clinic of the municipal institution "Central City Hospital" in Novaya Kakhovka, Kherson region, Ukraine, in the period before the Russian-Ukrainian war and the occupation of this city by the Russian army in February 2023. All patients who took part in the study gave their voluntary consent to participate in it. A total of 73 female patients took part in the study. Their average age was 29.3 ± 1.04 years. For 48 (65.75%) it was the first birth, for 21 (28.77%) - the second birth, for 4 (5.48%) - the third or more births. Before childbirth, all of them underwent a set of preparatory classes in preparation for childbirth in the antenatal clinic.

The distribution of the degrees of perineal ruptures in the female patients of the study group was as

follows: perineal ruptures of the first degree were found in 39 women in labor (53.43%); perineal ruptures of the second degree were found in 31 women in labor (42.47%); perineal ruptures of the third degree were found in 3 women in labor (4.11%); All female patients, before the start of restorative treatment, underwent a control examination by a gynecologist in the conditions of the antenatal clinic, with mandatory ultrasound of the rupture site and sutured wound, with determination of the condition of the scar and surrounding tissues [5, 6]. In patients with ruptures of the first degree, restorative treatment [7] was used 5-7 days after discharge from the maternity hospital, in the conditions of the therapeutic physical culture room of the antenatal clinic. In most patients in this group, wounds healed by primary intention, with virtually no complications; most ruptures did not require suturing; tissues were not infiltrated, mobile, and elastic.

In this female group, the complex of rehabilitation methods was limited to a 2–3-week complex of Kegel exercises and exercises on a fitball, with the aim of strengthening the muscles and ligamentous apparatus of the perineum and pelvic floor after childbirth [6]. Taking into account the time of tissue healing in case of sutured ruptures of the 2nd degree, taking into account the well-being of patients, their complaints, the condition of the wound, rehabilitation measures were carried out no earlier than 1 month after receiving an injury during childbirth, in the conditions of a women's consultation. The duration of the complex of rehabilitation methods varied from 1.5 to 2 months, with joint supervision by a rehabilitation specialist and a gynecologist. In this pathology, simultaneously with the use of Kegel exercises and sessions using a fitball, therapeutic physical training and local physiotherapeutic treatment of the area of traumatic injury were actively used, with the use of 10-15 sessions of magnetic therapy, the use of ultrasound and laser therapy [8], the use of the yellow spectrum of light using the Zepter Biopton® device [9, 10].

In the group of female patients with grade III perineal rupture, where the most severe damage was present (vaginal tissue and perineal muscles, rupture of the anal sphincter), the criterion for the start and volume of the rehabilitation and recovery complex was the issue of healing of tissues

damaged during childbirth, as well as the presence of post-traumatic complications associated with such disorders as partial or complete incontinence of gases and feces with damage to the anal sphincter, the presence of pain of varying intensity during sexual intercourse (dyspareunia), both in the vagina and in the area of the scar and damaged perineum [1, 10].

All female patients in this group were examined by specialists - a proctologist and a gynecologist - before the start of rehabilitation treatment. The degree of healing of damaged tissues and the condition of the scar directly depends on the extent of the injury itself, as well as on the technique and method of suturing the damaged areas and the course of the postpartum period, the presence and severity of postpartum and postoperative complications [5, 10]. Healing of sutures of any localization after childbirth is a process of complete restoration of the integrity of the soft tissues of the perineum [1, 3]. We obtained important data on the condition of the scar and tissues at the site of injury after examination and study of the injury site, both during a special gynecological examination, using a bimanual vaginal and recto-vaginal examination, and based on the results of an ultrasound examination of the injury zone [1, 3, 10]. We took these important components into account when planning and selecting rehabilitation methods in this group of patients. Since this group has a high risk of developing various pathologies in the future, such as pelvic floor insufficiency syndrome, chronic pelvic pain syndrome, prolapse of the internal genital organs, rehabilitation measures aimed at strengthening the muscular-ligamentous apparatus of the pelvic floor are, in our opinion, very relevant and in demand. In this group, the duration of rehabilitation therapy was the longest - from 2.5 to 3 months.

Initially, it was carried out in the therapeutic physical culture room of the women's consultation, and in the last 2-3 weeks at home. The female patients performed a set of special Kegel exercises, a fitball was actively used, therapeutic gymnastics, using a set of exercises to strengthen the muscles of the perineum and pelvic floor. In addition, all patients received physiotherapy treatment in the form of using the yellow spectrum of light using the Zepter Bioptron® device with the use of oxy-

spray, magnetic infrared irradiation of the perineum area [9].

Using questionnaires and additional, extended survey of female patients, 1-3-6 months after the start of rehabilitation treatment (taking into account the data of examination by a gynecologist, proctologist, ultrasound examination), subjective and objective monitoring of the effectiveness of the rehabilitation measures was carried out. Already after 3-4 weeks, female patients with grade I ruptures (n=39) noted a complete absence of discomfort and pain in the perineum, could sit freely, spread their legs, perform certain physical activities and daily housework, did not note any unpleasant sensations or difficulties with defecation, gas passage and urination. After 3 months, with sexual activity, there were no problems associated with birth injury in the group. Of the female patients with grade II perineal ruptures (n=31), according to the examination, interview and questionnaire data, after 1-1.5 months of rehabilitation treatment, 23 (74.19%) showed complete healing of tissue damage resulting from birth trauma, a stable scar was formed, the muscular-ligamentous apparatus of the pelvic floor was strengthened, unpleasant sensations and discomfort during urination, gas discharge and defecation significantly decreased. After 2.5-3 months from the start of rehabilitation measures, 29 (93.55%) patients already noted a significant improvement in all parameters and an almost complete absence of dyspareunia and unpleasant prolapse in the perineum during intimacy. When studying the effectiveness of restorative treatment, 6 months after the rehabilitation course, all 31 female patients noted a complete absence of any pathological disorders and discomfort when doing work, household chores and sexual intercourse.

In female patients of the third group (n=3), with the most severe damage to the vagina, muscles and ligaments of the pelvic floor, anal sphincter and partially tissues of the rectum, the longest rehabilitation treatment was carried out - 2.5-3 months. Almost the first changes in the direction of improving well-being and the beginning of positive changes (according to the data of medical examinations, ultrasound data, survey and questionnaires) were noted no earlier than 1.5-2

months after the start of using the complex of rehabilitation treatment methods.

The beginning of improvement of the process of gas discharge and defecation, the ability to sit, including in the toilet when urinating and / or performing a number of physical exercises, appeared only 1.5-2.5 months after childbirth and receiving a severe birth injury, against the background of treatment and rehabilitation. If special Kegel exercises and classes on a fitball, physiotherapy procedures were perceived by patients positively and they willingly performed them, then any attempt to introduce therapeutic physical culture caused fear, protest and an obvious reluctance to use physical exercise due to fear of increased discomfort, pain and possible complications. Therefore, in this group we faced the problem of additional psychological rehabilitation, and the use of such methods as aromatherapy with plant oils with a sedative effect, in combination with relaxing music (from 15 to 25 sessions), electro sleep (No. 10).

Three to four months after the start of rehabilitation treatment, two (66.67%) female patients noted an improvement in their condition, in the form of a significant reduction in discomfort and pain at the site of the birth injury, the ability to have painless or slightly painful bowel movements and pass gas (against the background of an appropriate diet), and the ability to sit and do sedentary work. Six months after the rehabilitation treatment, all three patients noted a positive effect from the rehabilitation. After 6-9 months, all patients in this group gradually decreased and then practically ceased to have dyspareunia and discomfort in the area of the birth injury during sexual intercourse. The data from gynecological and proctological examinations conducted during these periods of time confirmed the stabilization of the restorative and reparative processes of the perineal tissues in the area of the rupture and the restoration of the perineum and anal sphincter in these patients.

Conclusions

Analyzing the above materials of the conducted research, the following conclusions can be made:

1. A large number of perineal ruptures of the 1st-3rd degree in modern obstetric practice requires not only their prevention, but also early and

comprehensive rehabilitation and complex restorative treatment of the muscles and ligamentous apparatus of the perineum, which is a means of active prevention of prolapse of the female internal genital organs.

2. The proposed approximate set of methods for restorative treatment of the consequences of perineal ruptures can be offered for active practical use, both at the outpatient and sanatorium-resort stage of rehabilitation of this group of patients.

3. This concludes another author's article, thematically devoted to various methods of non-drug restorative treatment and rehabilitation measures in the field of obstetrics and gynecology.

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