

Traumel C In Optimizing Wound Healing in The Area of The Incision of The Uterus After a Planned Cesarean Section

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Abstract

The aim of the study was to determine the possibility and feasibility of using Traumel With no antibiotic prophylaxis to improve wound healing processes on the uterus after cesarean section.

46 maternity hospitals were examined. In 26 patients, Traumel was used in the postoperative period, and in 20 only antibiotic prophylaxis was used.

The postoperative period in all women proceeded without complications. But the indices of the involution of the seam area (IIPSH) and neutrophil-lymphocytic index (NLI) indicated more optimal wound healing on the uterus in women who used only Traumel C.

Keywords: caesarean section; antibiotics; Traumel C; healing

Introduction

The problem of operative delivery is one of the main discussion and research topics discussed in the press (V.N.Serov 2001). With an increase in the proportion of surgical delivery, there is no tendency to reduce infectious complications, the level of which reaches 47.7% according to some authors (Baev O.R. 20015), while the risk of endometritis increases 5-10 times against the background of a decrease in the sensitivity of bacterial infection to antibiotics. This increases the likelihood of secondary healing of the incision area on the uterus and the morphological insolvency of this zone during subsequent pregnancy with the need for repeated cesarean section. According to D.S. Sarkisov (1982), lymphocytes and cytokines are directly involved in the healing of the wound surface. At the same time, immunity is of great importance for optimal wound healing, which is designed to preserve the unity of the internal environment and the macroorganism. The ideal option for wound healing is considered to be primary tension healing with complete repair (Kuzin M.I., Kostyuchenok B.M., 1990). Primary healing of the wound on the uterus provides a high degree of probability of the birth of a child through the natural birth canal in women with a scar on the uterus after cesarean section (V.A.Kramarsky, 2008). Therefore, the search for ways to optimize the healing of the incision on the uterus is one of the problems of modern obstetrics

The purpose of our study was to determine the possible feasibility of using the drug Traumel C in the postoperative period in order to reduce

inflammation in the area of the incision of the uterus and the possibility of primary healing of this area.

Material and methods

46 people after cesarean section performed during full-term pregnancy in a planned manner. Of these, 26 had Traumel C without antibacterial prophylaxis in the postoperative period after informed consent, and 20 had antibiotic therapy without Traumel C. The postoperative period in all women proceeded without complications. Traumel C was used from the first day of the postoperative period for 1 (2.2 ml.) ampoule of I / m per day for 3 days, then 1 tablet 20 minutes before eating under the tongue before resorption for 7 days. The average age of women and parity in both groups did not statistically have a significant difference. Somatic pathology was mainly represented by mild anemia in both groups of women, 18(69.2%) and 14 (70%) people, respectively, with an average hemoglobin level of 104.3 ± 2.5 g/l in the first and 106.2 ± 3.1 g/l in the second group. Chronic pyelonephritis occurred in 2 (7.7%) and 3 (15%) women and a high degree of myopia in 2(7.7%) and 1 (5%), respectively. In 3 (11.5%) cases of the first and 2 (10%) of the second group of women, there was a high degree of probability of developing a clinically narrow pelvis according to prognostic indices. Pregnant women with severe preeclampsia, uterine scar and HIV-infected women were excluded from the study.

The frequency of indications for the production of planned operative delivery was almost the same and also practically did not differ. The main

indication for planned operative delivery was complex factors, taking into account the burdened obstetric and gynecological anamnesis, amounting respectively to 16 (61.5%) people in the first and 12 (60%) in the second group of women. The second group of women in the postoperative period was carried out as standard. Women from the second group (20 people) underwent antibiotic therapy in the preoperative period, 2-3 hours before the operation in order to prevent purulent-septic complications. The operation was performed for all women under spinal anesthesia. The average duration of surgery in the groups of women under consideration did not have a statistically significant difference and were respectively equal to 35.2 ± 5.4 minutes and 41.2 ± 6.8 minutes ($P \geq 0.01$).

The average postoperative blood loss in the first group of maternity women was 386.7 ± 86 ml., and in the second 423.5 ± 102.1 ml. without a significant statistical difference ($P \leq 0.05$). The average weight of newborns is 3647 ± 79 g and 3846.5 ± 94 g.

The postoperative period in all the subjects proceeded without complications. All the examined maternity hospitals were discharged on the 5th day of the postoperative period with live full-term babies.

Ultrasound control on the 4th and 8th days with measurement of the conditional suture area and calculation of the index of involution of the suture area (IIP) according to the formula: $P-I/P$, where P is the conditional suture area on the uterus determined by ultrasound on the 4th day of the postoperative period, B is the conditional suture area on the uterus on the 8th day of the postoperative period determined by ultrasound on an outpatient basis. With primary, physiological healing of the incision area on the uterus, the index should not be less than 0.5. With secondary healing, the IIPSH is always less than 0.5. (patent for invention No.2175524, 10.11.2001) To assess the severity of the inflammatory process, the level of fibrinogen was determined, the level of which not only reflects the severity of inflammatory processes, but also affects the nature of healing of the incision area on the uterus, on day 4 and the neutrophil-lymphocyte index (the ratio of % of neutrophils to lymphocytes) (Krihton D et al.1982).

Traumel C complex preparation contains 12 herbal and 2 mineral components that stop inflammatory processes and pain syndrome, normalize blood circulation at the site of injury or injury, eliminate swelling and restore the activity of affected muscle structures. The drug has a proven anti-inflammatory effect based on the regulation of inflammatory factors (pro-inflammatory and anti-inflammatory cytokines) and compared with the action of classical NSAIDs (diclofenac, selective COX-2 inhibitors), while it has a better safety profile, which is especially important for women in the postpartum period. The drug is indicated for the treatment of inflammatory diseases, especially in post-traumatic condition, which is the postoperative period after cesarean section.

For statistical processing of the obtained results, the InStar 270 biostatistics program (Graph Pad, USA) was used. The differences between the groups $p \leq 0.05$ were considered statistically significant.

The results obtained and their discussion

the IIP in the first group averaged 0.64 ± 0.03 , and in the second 0.57 ± 0.03 and were statistically different ($P \leq 0.05$)

The fibrinogen level in the first group was on average 3.6 ± 0.7 g/l, and in the second 4.8 ± 0.9 g/l. The difference was not statistically significant ($P \geq 0.01$), but there was a tendency to a greater amount of fibrinogen in the blood serum among women who did not have prevention of purulent-septic complications with Traumel C.

The level of C reactive protein in both groups of maternity women in the postoperative period did not differ. But the average neutrophil-lymphocytic index in the group of women who were treated with Traumel C was significantly lower compared to the group of women who were not treated with Traumel C and were respectively equal to 4.34 ± 1.3 and 7.5 ± 1.6 ($P \leq 0.01$).

Thus, signs of a more intensive reduction of the suture area on the uterus in the group of women who received Traumel C in the postoperative period compared with the group of women who did not receive Traumel C indicate a greater degree of physiology of the healing processes occurring in the first group of women studied. At the same time, the IIPSH indicators confirm the primacy of healing in both the first and second groups of maternity hospitals.

Confirmation of the greater physiology of the healing processes in the first group of women is also a significant difference in the indicators of the neutrophil lymphocytic index indicating the probability of not only generalization of infection, but also the degree of its severity.

The average values of fibrinogen are not significantly different in the studied groups of women, confirming the high degree of severity of the inflammatory

process in the second group of maternity women, which may be an indirect sign of the secondary nature of healing processes.

Conclusions

1. Traumel C has a pronounced anti-inflammatory effect in the area of the incision on the uterus during cesarean section.
2. Antihomotoxic prevention of purulent-septic complications after cesarean section surgery is an appropriate option for optimal healing of the incision area on the uterus after cesarean section surgery.
3. An alternative method for the prevention of GSO and optimization of wound healing processes on the uterus, in the absence of pronounced risk factors for GSO, is antihomotoxic therapy using Traumel C.

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