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Innovative method for prevention of complications of perineotomy with the application of modern suture material with antibacterial coating

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Аннотация

Инновационный метод профилактики осложнений перинеотомии с применением современного шовного материала с антибактериальным покрытием при восстановлении целостности промежности у рожениц с воспалительными заболеваниями влагалища является актуальным и обоснованным мероприятием.

Ключевые слова: перинеопластика, гнойно-септические осложнения, шовный материал.

The urgency of the problem. The quality of the surgical aid is tightly linked with the quality of the materials used in the operation. The correct choice of suture material determines the absence of such complications in the postoperative period as suture sinus, incisional hernias, gross cicatricial changes in tissues, suppuration of a postoperative wound with dehiscence [1, 7, 9].

A large number of suture materials with various and sometimes very unusual properties are used in modern surgery. This fact makes the problem of choosing the appropriate suture material for a specific operation quite relevant and at the same time makes increased demands on the reliability of the formed nodes. When choosing a thread you should base your decision primarily on its chemical and biological properties - the ability to absorb, the timing of resorption, the severity of the tissue reaction to thread implantation and the structure of the thread [4, 6, 10].

Until now, the traditional and only absorbable material was catgut - twisted collagen threads obtained from the submucosal layer of the cattle intestines. As a foreign protein, catgut was absorbed by an antigen-antibody reaction with an expressed inflammatory response. In addition, catgut is a nutrient substrate for microorganisms, due to its fibrous structure and «wick effect» it assists in the transfer of infectious agents along the thread to healthy tissues [1, 3, 8, 9].

In the last 4 years, due to the mad cow virus spread in Europe, some countries restricted the use of collagen-based products. Catgut is banned in medicine in Germany, England, France, Poland and other countries [1, 5, 6, 9, 12].

The most advanced modern braided absorbable sutures based on a copolymer of glycolic and lactic acids are Vicryl and Polysorb. The breaking period of polyglycolactide threads is about 4-5 weeks and the resorption is 70 days [1, 2, 4, 9].

A new modification of Vicryl - Vicryl * Plus (manufactured by Ethicon, USA) has an antimicrobial coating - triclosan. Vicryl-Plus can be used for suturing perineal tears [7, 8, 9, 12].

Anatomical changes after tears and preventive dissection of the perineum require adherence to certain principles: tension-free plasty, the use of thin suture material, tissue trauma minimization due to an atraumatic needle or a needle with an eyelet [7, 8]. All these requirements are met by Vicril-Plus, which creates comfort and reliable wound closure for the surgeon and the patient [3, 4, 10, 11].

Comfort for the surgeon is mainly due to the use of one material, which is durable and well adapted to all anatomical layers (vaginal mucosa, perineum and skin), and the presence of its qualities (antimicrobial coating with triclosan, knot quality). Comfort for the postpartum

woman is because there is no need to remove stitches in the postpartum period for intradermal stitching.

Aim: The purpose of this work was the use of Vicril-Plus suture material in the restoration of perineal tissue in women with nonspecific colpitis.

Materials and methods: A total of 33 puerperas were examined, after urgent birth through the vaginal birth canal, complicated by perineal rupture (9 patients), as well as perineo- or episiotomy (24 patients). Indications for perineo- and episiotomy were perineal rupture. Examination revealed nonspecific vaginitis in all patients.

Observations and studies were carried out from 2007-2015 in the obstetric department of the Perinatal Medical Center of Tyumen, 1 month after giving birth, the patients were examined in the multidisciplinary clinic of the Tyumen State Medical University (Tyumen, Russian Federation). In the postoperative period, the presence and frequency of complications, the number of hospital stay days after surgery and the condition of the skin wound were assessed.

Results: In all the examined patients, there was no postoperative suppuration of the skin wound, no inconsistency of the perineal suture. The hospital stay averaged 4.5 ± 0.7 days.

Examination of the skin wound of the perineum 1 month after childbirth revealed no inconsistency of the suture of the perineum, rough skin scars, and other complications.

Conclusion: The introduction of the modern suture material Vicril-Plus with an antimicrobial coating in restoring the integrity of women in puerperas with inflammatory diseases of the vagina is a relevant and justified measure.

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