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ИСПОЛЬЗОВАНИЕ СОВРЕМЕННОГО ШОВНОГО МАТЕРИАЛА В ПЕРИНЕОПЛАСТИКЕ РОЖЕНИЦ

***Аннотация**: в статье рассмотрены инновационный метод профилактики осложнений при перинеотомии с использованием современного материала швов-держателей с антибактериальным покрытием в процессе восстановления промежности роженицы при воспалительных вагинальных заболеваниях.*

***Ключевые слова**: перинеоплатсика, общее заражение крови, шовный материал.*

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THE USE OF MODERN SUTURE MATERIAL IN PERINEOPLASTY IN MATERNITY PATIENTS

***Abstract**: the artile examines innovative method of prophylaxis of complications of perineotomy with the use of modern material of guy-sutures with antibacterial coverage at renewal of integrity of crotch for women in puerperas with the inflammatory diseases of vagina.*

***Keywords**: perineoplasty, purulent sepsis complications, suture material.*

Birth trauma is an important issue of delivery of women through the natural birth canal. According to the literature, the frequency of birth trauma (ruptures of the cervix, vaginal walls, perineum, vulva) is 10.2–39%. The issue of perineal trauma is especially relevant. There is an increase in this indicator, despite the active search for ways to optimally of delivery through the natural birth canal.

The most common birth trauma is perineal rupture. Despite the constant search for optimal and less traumatic methods of vaginal delivery, the number of perineal ruptures does not tend to decrease. According to J.E. Lutomski et al. (2011), the

number of perineal rupture is 6.5%, in the observations of Italian researchers L. Driul et al. (2009) is much higher – from 10% to 50%.

In the course of research, scientists from Israel found that obstetric perineal trauma with diagnosed damage to the perineal muscles is 19.3%. According to the results of A. Joshi et R. Achaiya (2009), the frequency of perineal ruptures is in the range of 43.2–70%, and in the observations of E. Mei-danet et al. (2008) from 78.9%. But a very high frequency of perineal trauma of varying severity occurs in 85% of cases of vaginal births presented in the British studies by D.E. Bick et al. (2010) and C. Kettle et al. (2011) [17].

An important characteristic is also the ability to biodegradation, according to which absorbable and non-absorbable threads are released. Vicryl is an absorbable synthetic suture. There is a second name – PHA suture material. It is a polyglycolide thread of synthetic fiber, invented back in the 60s. Vikril's components – glycodine and L-lactide – do not have antigenic properties, cause an indistinct tissue reaction when absorbed, and are pyrogen-free [16].

Vicryl is an alternative to natural Catgut, but has several advantages over it. Compared to Catgut, Vicryl is more comfortable to work with because it does not slip, it is durable and has a predictable absorption time. Resorption occurs gradually, with the decomposition of suture threads into acids – glycolic and lactic, then their assimilation by the body occurs. In 70 days, the material is completely absorbed. On the 35th day, the wound is completely healed.

An important characteristic of the suture material used in vaginal surgery is the absence of wicking and capillarity. «Wick» is the ability of the material to absorb the contents of the wound due to the micro-voids between the fibers. «Capillarity» is the ability of the suture to absorb and retain fluid in the pores as a result of surface tension [15].

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].

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; 13].

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.

Список литературы

1. Егиев В.Н. Шовные материалы в хирургии и гинекологии / В.Н. Егиев // Вестник Российской ассоциации акушеров-гинекологов. – 1995. – №3. – С. 70–83.

2. Винокурова Е.А. Использование шовного материала «Викрил» при операции кесарева сечения / Е.А. Винокурова // Научный вестник Тюменской медицинской академии. – 2002. – №7–8. – С.23.

3. Винокурова Е.А. Первый опыт применения 2-октилцианоакрилового клея для закрытия кожи и предотвращения раневой инфекции в оперативной гинекологии г. Тюмени / Е.А. Винокурова, Е.Ю. Семенова, Ф.Ю. Ибрагимов, А.В. Пустынников // Медицинская наука и образование Урала. – 2007. – Т. 8, №4 (48). – С. 13–14.

4. Винокурова Е.А. Клиническое значение применения лазерной пунктуры при психоэмоциональных расстройствах у больных с хроническим воспалительным процессом матки и ее придатков / Е.А. Винокурова, В.Н. Баранов, В.А. Полякова, И.И Кукарская [и др.] // Вопросы гинекологии, акушерства и перинатологии. – 2018. – Т.17, №1. – С. 78–82.

5. Винокурова Е.А. Опыт применения санаторно-курортного лечения у пациенток с дистрофическими заболеваниями вульвы / Е.А. Винокурова, И.В. Фомина, В.А. Полякова // Аллергология и иммунология. – 2018. – Т. 19, №1. – С. 63.

6. Винокурова Е.А. Особенности реабилитации больных с воспалительными заболеваниями матки и придатков / Е.А. Винокурова, В.Н. Баранов, В.А. Полякова [и др.] // Аллергология и иммунология. – 2018. – Т. 19, №1. – С. 62.

7. Карпов Е.В. Внедрение современного шовного материала с антибактериальным покрытием в акушерскую практику г. Тюмени / Е.В. Карпов, Е.А. Винокурова, К.В. Кухар, Т.А. Ербактанова // Медицинская наука и образование Урала. – 2007. – Т. 8, №4 (48). – С. 34–35.

8. Сайт Общероссийской общественной организации «Лига защитников пациентов» [Электронный ресурс]. – Режим доступа: http://www.ligazp.org/liga/liga.htm

9. Слепцов И.В. Узлы в хирургии / И.В. Слепцов, Р.А. Черников – СПб.: Салит-Медкнига, 2004. – 112 с.

10. Фомина И.В. Подходы к санаторно-курортному лечению дистрофических заболеваний вульвы в центре восстановительной медицины и реабилитации «Сибирь» / И.В. Фомина, Е.А. Винокурова, Е.В. Шишина, А.С. Прорвина // Материалы X юбилейного Терапевтического форума «Актуальные вопросы диагностики и лечения наиболее распространенных заболеваний внутренних органов» Материалы X юбилейного Терапевтического форума. – 2018. – С. 97.

11. Vinokurova Elena, Baranov Vladimir, Karabinskaya Elena. Gynecological care and rehabilitation of patients with chronic pain syndrome related to CPID // E-book: Publication of the Proceedings of the X World Congress on Asthma, Allergy and COPD (New York, USA, April 28 – May 1, 2017): 321–329. Allergy, asthma, copd, immunophysiology & norehabilitology: innovative technologies (editor professor Revaz Sepiashvili) Filodiritto international proceedings. 2017. P. 321–329.

12. Masson F., Bilwiels J. e.a. Interest in a new suture material for 2000 episiotomy repairs: polyglactin 910 // Clin. Gyn. Obstetr. – 1988. – P. 19–21.

13. Тузлуков И.И.Разрыв промежности и эпизиотомия. Медико-социальные аспекты / И.И. Тузлуков, М.С. Коваленко, Н.В. Наумова [и др.] // Наука молодых (Eruditio Juvenium). – 2019. – Т. 7, №2. – С. 255–260.

14. Краснопольский В.И. Оперативная гинекология / В.И. Краснопольский, С.Н. Буянова, Н.А. Щукина, А.А. Попов. – М.: МЕДпресс-информ., 2010. – С. 320.

15. Громова А.Л. Практические аспекты применения современного шовного материала / А.Л. Громова, Ю.М. Уваров, С.В. Байдо. – Великий Новгород, 2001. – С. 34.

16. Егиев В.Н. Хирургический шов / В.Н. Егиев, В.М. Буянов, О.А. Удотов. – М.: Медпрактика-М, 2001. – С. 112

17. Roos A.M., Thakar M.R., Sultan M.A. Outcome of primary repair of obstetric anal sphincter injuries (OASIS) – does the grade of tear matter? Ultrasound Obstet. Gynecol. 2009; 36(3): 368–77.

18. Ismail S.I., Puyk B. The rise of obstetric anal sphincter injuries (OASIS): 11-year trend analysis using Patient Episode Database for Wales (PEDW) data. J. Obstet. Gynaecol. 2014; 34(6): 495–8.

References

1. Egiev, V. N. (1995). Shovnye materialy v khirurgii i ginekologii. *Vestnik Rossiiskoi assotsiatsii akusherov-ginekologov*, *3*, 70-83.

2. Vinokurova, E. A. (2002). Ispol'zovanie shovnogo materiala "Vikril" pri operatsii kesareva secheniia. *Nauchnyi vestnik Tiumenskoi meditsinskoi akademii, 7*.

3. Vinokurova, E. A., Semenova, E. Iu., Ibragimov, F. Iu., & Pustynnikov, A. V. (2007). Pervyi opyt primeneniia 2-oktiltsianoakrilovogo kleia dlia zakrytiia kozhi i predotvrashcheniia ranevoi infektsii v operativnoi ginekologii g. Tiumeni. *Meditsinskaia nauka i obrazovanie Urala, T. 8, 4 (48)*, 13-14.

4. Vinokurova, E. A., Baranov, V. N., & Poliakova, V. A. (2018). Klinicheskoe znachenie primeneniia lazernoi punktury pri psikhoemotsional'nykh rasstroistvakh u bol'nykh s khronicheskim vospalitel'nym protsessom matki i ee pridatkov. *Voprosy ginekologii, akusherstva i perinatologii, T.17, 1*, 78-82.

5. Vinokurova, E. A., Fomina, I. V., & Poliakova, V. A. (2018). Opyt primeneniia sanatorno-kurortnogo lecheniia u patsientok s distroficheskimi zabolevaniiami vul'vy. *Allergologiia i immunologiia, T. 19, 1*, 63.

6. Vinokurova, E. A., Baranov, V. N., & Poliakova, V. A. (2018). Osobennosti reabilitatsii bol'nykh s vospalitel'nymi zabolevaniiami matki i pridatkov. *Allergologiia i immunologiia, T. 19, 1*, 62.

7. Karpov, E. V., Vinokurova, E. A., Kukhar, K. V., & Erbaktanova, T. A. (2007). Vnedrenie sovremennogo shovnogo materiala s antibakterial'nym pokrytiem v akusherskuiu praktiku g. Tiumeni. *Meditsinskaia nauka i obrazovanie Urala, T. 8, 4 (48)*, 34-35.

8. Sait Obshcherossiiskoi obshchestvennoi organizatsii "Liga zashchitnikov patsientov". Retrieved from http://www.ligazp.org/liga/liga.htm

9. Sleptsov, I. V., & Chernikov, R. A. (2004). Uzly v khirurgii., 112. SPb.: Salit-Medkniga.

10. Fomina, I. V., Vinokurova, E. A., Shishina, E. V., & Prorvina, A. S. (2018). Podkhody k sanatorno-kurortnomu lecheniiu distroficheskikh zabolevanii vul'vy v tsentre vosstanovitel'noi meditsiny i reabilitatsii "Sibir'". *Materialy X iubileinogo Terapevticheskogo foruma "Aktual'nye voprosy diagnostiki i lecheniia naibolee rasprostranennykh zabolevanii vnutrennikh organov" Materialy X iubileinogo Terapevticheskogo foruma, S. 97*.

11. (2017). Vinokurova Elena, Baranov Vladimir, Karabinskaya Elena. Gynecological care and rehabilitation of patients with chronic pain syndrome related to CPID. *E-book: Publication of the Proceedings of the X World Congress on Asthma, Allergy and COPD (New York, USA, April 28 -: 321-329. Allergy, asthma, copd, immunophysiology & norehabilitology: innovative technologies (editor professor Revaz Sepiashvili) Filodi*. May 1).

12. Masson, F., & Bilwiels, J. (1988). e.a. Interest in a new suture material for 2000 episiotomy repairs: polyglactin 910. *Clin. Gyn. Obstetr, P. 19*.

13. Tuzlukov, I. I., Kovalenko, M. S., & Naumova, N. V. (2019). Tuzlukov I.I.Razryv promezhnosti i epiziotomiia. Mediko-sotsial'nye aspekty. *Nauka molodykh (Eruditio Juvenium), T. 7*, *2*, 255-260.

14. Krasnopol'skii, V. I., Buianova, S. N., Shchukina, N. A., & Popov, A. A. (2010). Operativnaia ginekologiia., 320. M.: MEDpress-inform.

15. Gromova, A. L., Uvarov, Iu. M., & Baido, S. V. (2001). Prakticheskie aspekty primeneniia sovremennogo shovnogo materiala., 34. Velikii Novgorod.

16. Egiev, V. N., Buianov, V. M., & Udotov, O. A. (2001). Khirurgicheskii shov., 112. M.: Medpraktika-M.

17. Roos, A. M., Thakar, M. R., & Sultan, M. A. Outcome of primary repair of obstetric anal sphincter injuries (OASIS).

18. Ismail, S. I., Puyk, B., & Obstet, J. The rise of obstetric anal sphincter injuries (OASIS): 11-year trend analysis using Patient Episode Database for Wales (PEDW) data.. Gynaecol. 2014; 34(6): 495-8.

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