erals, which are then expanded. Sometimes the recurrence occurs at the expense of the outflow of the so-called cremasteric vein. Such a situation can use advantage of endoscopic surgery, during which you can simultaneously block both testicular vein and the cremasteric vein.

Conclusion

Among all the operations for varicocele directed at the intersection of the internal spermatic vein, endoscopic surgery is the most progressive. It is less traumatic to the patient, but due to the fact that the testicular vein is easy to look all over, the relapse rate cut to a minimum. In addition, endoscopic surgery is the only operation in which one-stage treatment of bilateral varicocele is possible. For all other methods it requires a separate transaction for each part. In addition, endoscopic surgery is the most optimal method of operation for the treatment of recurrent varicocele. This is associated with an ability to observe spermatic vein almost in its entirety during the operation. The use of laparoscopic excision of the internal spermatic vein for varicocele has allowed us to significantly reduce the time of hospitalisation and duration of surgery, minimizing risk of postoperative complications, decrease the number of dressings used at the postoperative period.

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Submitted 17.07.2012

UDC 618.1-007.44-06:616.62-008.222/223]-089

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MESH APPLICATION IN GYNECOLOGY: PROS AND CONS

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УДК 618.1-007.44-06:616.62-008.222/223]-089

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ПРИМЕНЕНИЕ СЕТЧАТЫХ АЛЛОТРАНСПЛАНТАТОВ В ГИНЕКОЛОГИИ: ЗА И ПРОТИВ

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Авторы попытались обобщить собственный опыт и имеющиеся данные исследований по использованию сетчатых аллотрансплантатов в хирургической гинекологии.

Полученные результаты мета-анализа данных исследований не отвечают на вопрос, какой вариант оперативных вмешательств лучше — с использованием аллотрансплантатов или без них. Применение полимерных сеток уменьшает частоту рецидивов, однако связано с появлением более серьезных осложнений, для устранения которых зачастую требуется выполнение более инвазивных хирургических вмешательств, чем операции по их установке.

В настоящее время недостаточно отдаленных результатов наблюдения за больными, перенесшими оперативное лечение с использованием сетчатых аллотрансплантатов.

Ключевые слова: сетчатые аллотрансплантаты, гинекология, осложнения, рецидивы.

UDC 618.1-007.44-06:616.62-008.222/223]-089

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MESH APPLICATION IN GYNECOLOGY: PROS AND CONS

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In this article we try to summarize our experience and available research data on mesh surgery in gynecology.

Materials and methods. We had performed search for available sources of information such as Pubmed and Cohrane Internet databases to reveal currently available evidence based data on advantages and disadvantages of using mesh in gynecological surgery.

Results. Existing meta-analyses of research data do not answer the question what technique type is better: with or without mesh. Most of them agree on the following points: adoption of mesh decreases recurrence rate; mesh is associated with more serious complications; surgery should be performed by experienced surgeon that specializes in pelvic surgery; there are not enough long-term research data on meshes.

Conclusion. Currently there is no final decision concerning place of mesh in gynecological surgery. Like any surgical technique it has specific advantages and drawbacks. More realistic indications for adoption of this kind of techniques are only being formed. Only future will reveal the real value of meshes application in urogynecological surgery.

Key words: mesh, gynecology, complication, recurrence.

Background

Meshes emerged in the field of surgical gynecology over a decade ago as a new promising method for pelvic organ prolapse (POP) reconstructive surgery and treatment for stress urinary incontinence (SUI). This technique became very popular and is currently widely used. After the first acquaintance and introduction of meshes all around the world, now we face massive withdrawal from them because of serious and frequently unpredicted complications.

The use of synthetic mesh to augment vaginal repair procedures for pelvic organ prolapse has increased in large part because of dissatisfaction with the success rates of traditional colporrhaphy. Its use, however, still remains controversial.

In this article we will try to summarize our experience and available research data on mesh surgery in gynecology.

Materials and Methods

We had performed search for available sources of information such as Pubmed and Cohrane Internet databases to reveal currently available evidence based data on advantages and disadvantages of using mesh in gynecological surgery.

Results

Four randomized controlled studies comparing traditional colporrhaphy with vaginal repair using mesh augmentation had conflicting results. An unblinded, prospective, randomized controlled trial by M. Carey et al. investigated whether mesh augmentation during vaginal repair would reduce the rate of recurrent prolapse at 12 months compared with traditional colporrhaphy shown that surgery does not result in significantly less recurrent prolapse than traditional colporrhaphy [1].

There is no widely clinically adopted classification of POP. The most recent and widely used in research is pelvic organ prolapse quantification system (POP-Q) [2]. Although this system exists for a pretty long time it is not popular outside research institutions even with the frequent popularization efforts [3; 4]. This fact also complicates any data meta-analysis a lot.

Most of popular surgical POP repair techniques could be performed via abdominal, laparoscopic and transvaginal approach. Only partial data on approach comparison is currently available.

Laparoscopic sacrocolpopexy (LSCP) is currently considered to be safest one in terms of complication rate, but it is still associated with complications. This operation is being performed only for slightly more the ten years and follow-up period in all papers on it is rather small to consider it the best choice. Even LSCP have many variations depending on surgeon preferences and patient related factors and some of them could affect the result of operation greatly [8].

Food and drug administration (FDA) of United States of America in 2008 and then in 2010 released two notices regarding mesh-related complications in gynecological practice [5]. In this notice it reports about 2874 cases of complications after placement of meshes for treatment of POP and SUI. Among them 1503 were related to POP and 1371 to SUI. After analyzing available data FDA experts summarize that “serious adverse events are NOT rare, contrary to what was stated in the 2008 PHN, and transvaginally placed mesh in POP repair does NOT conclusively improve clinical outcomes over traditional non-mesh repair” [5]. Currently it is the most known recommendation regarding mesh surgery in urogynecology.

The American Urological Association (AUA) strongly agrees with the FDA that a thorough informed consent should be conducted prior to the use of mesh products for pelvic organ prolapse. The AUA also agrees with the FDA statement that surgeons who wish to utilize mesh techniques for pelvic organ prolapse should:

— undergo rigorous training in the principles of pelvic anatomy and pelvic surgery;

— be properly trained in specific mesh implantation techniques;

— be able to recognize and manage complications associated with vaginal mesh [9].

Existing meta-analyses of research data do not answer the question what technique type is better: with or without mesh. Most of them agree on the following points:

— mesh decreases recurrence rate;

— mesh is associated with more serious complications;

— there is not enough long-term research data on meshes.

Discussion

Mesh surgery is currently still one of recently emerged techniques and time should pass to confidently determine its place in gynecological surgery. If the worst complication after POP repair without meshes after patient was discharged from the hospital was POP recurrence, with meshes we have wide spectrum of complications. Mesh-associated complications are often unique and require very skilled surgeon to handle them. Sometimes treatment of such complications is even more complex than initial surgery that made them possible.

Pelvic organ prolapse and stress urinary incontinence coexist in 15 to 80 per cent of women with pelvic floor dysfunction [5; 6]. While these conditions are often concurrent, one may be mild or asymptomatic. Also, pelvic floor surgery may expose previously asymptomatic conditions; specifically, in previously continent women with pelvic organ prolapse, stress urinary incontinence may develop or worsen after prolapse repair [6; 7]. Deciding whether to perform a

combined surgical procedure to treat both prolapse and stress urinary incontinence versus a single procedure that address only one condition requires balancing the risk of incomplete treatment versus exposing the patient to unnecessary surgery [6].

To make things look even more complicated surgeons that specialize in different fields of medicine started to treat POP and stress urinary incontinence: gynecologists, urologists, colorectal surgeons and sometimes even general surgeons. New techniques continue to emerge every year. Every clinic invents something new. No standards or widely accepted technique classification currently exists. There are only list of typical techniques that are combined in different manners.

Every surgery is unique, every patient with POP require individually chosen combination of treatment methods. It is very hard to compare POP cases: dozens of techniques in hundreds of combinations result in thousands of patient groups. If you add surgeon, clinic and patient factors, this will give possibly unrepeatable combination of factors for each patient. This is why results of different research groups differ so much.

Mesh complications are strongly associated with decreased patient quality of life, thus have many legal issues. In United States of America a special service assisting patients with mesh complications was organized to regain their money they spent for this expensive surgery [10].

Conclusion

Currently there is no final decision concerning place of mesh in gynecological surgery. Like any surgical technique it has specific advantages and drawbacks. More realistic indications for adoption of this kind of techniques are only being formed. Only future will reveal the real value of application of meshes in urogynecological surgery.

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Submitted 18.07.2012