IUGA
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Vaginal Repair with Mesh

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Introduction

Prolapse of the vagina or uterus is a common condition causing symptoms such as vaginal bulge, a sensation of dragging or fullness in the vagina, difficulty emptying the bowels or bladder and back ache. Up to 11% of women may require surgery for pelvic organ prolapse during their lifetimes. Prolapse often occurs as a result of damage to the support structures of the uterus and vagina. It can be surgically repaired either through the abdomen or the vagina; using stitches to repair the body's own tissue (traditional surgery) or mesh implants to add support to weakened tissues.

Why are mesh implants used to repair prolapse?

Vaginal prolapse may recur after it has been treated by conventional surgery. This is especially true when the prolapse involves the front wall of the vagina ('bladder prolapse' / 'cystocele') and in the presence of risk factors such as obesity, chronic cough, constipation or occupations that involve excessive abdominal straining or heavy lifting. This is known as a recurrent prolapse.

The aim of a mesh implant is to reinforce natural tissue which has failed to support the pelvic organs, restoring support to the bladder, uterus or bowel and so preventing further bulging of these organs towards the vagina.

The term 'mesh' may refer to different types of materials including biologic grafts (derived from humans or animals), synthetic, absorbable (dissolves slowly over time), or permanent (stays in the body forever). Mesh can be used to repair prolapse of the front vaginal wall ('Cystocele') or the back vaginal wall ('Rectocele') in isolation or both at the same surgery. It can also be used to support the uterus (womb) in women suffering from uterine prolapse or to treat vaginal vault prolapse (descent of the vaginal apex after hysterectomy).

How is the surgery performed?

An incision is made in the vaginal skin and supporting tissue (fascia), they are then separated from the underlying organ (bladder or bowel, depending on the site of prolapse). The mesh implant is placed underneath the vaginal skin and fascia (Fig. 1 and 2)

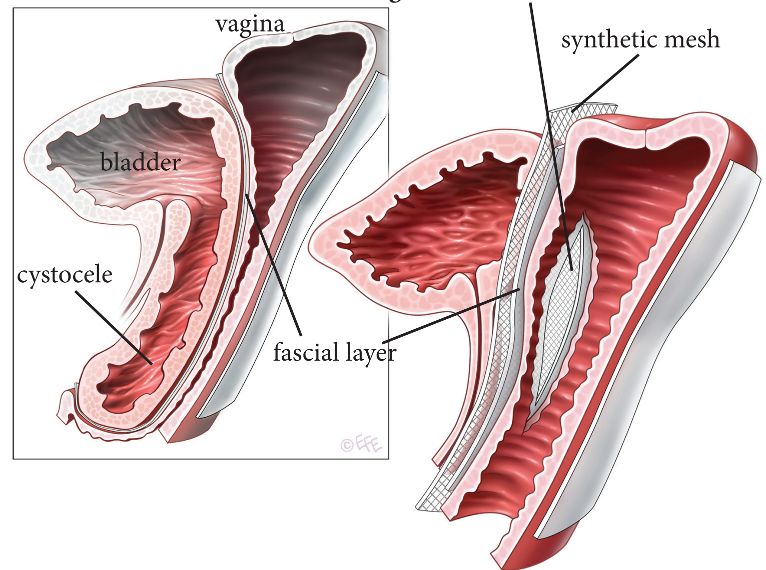

Fig. 1 Prolapse repair anterior compartment (cystocele repair) using synthetic mesh. Mesh is placed under the skin and fascia to provide additional support.

Different techniques are used to implant the graft and to keep it in place. These include fixation arms that exit through a few additional small incisions at the inner thigh and/or the buttocks or special anchors that fixate the mesh to firm structures in the pelvis (such as the sacrospinous ligament). If synthetic mesh is used, tissue grows through the holes in the graft and the mesh becomes fully incorporated in the body. Most biological grafts are reabsorbed slowly over about 6-9 months to be replaced by new support tissue produced by the body.

Is mesh good for me?

Currently available evidence suggests that surgery with mesh may be more effective than traditional surgery, in certain circumstances, in reducing the chance of recurrent prolapse. Mesh can be particularly useful in the treatment of bladder prolapse (cystocele) and vaginal vault prolapse. However, there is not much good evidence about how well this procedure works in the long term (over two years) and there is some concern regarding potential complications that are unique to permanent synthetic mesh placed through the vagina (see further details in complications section).

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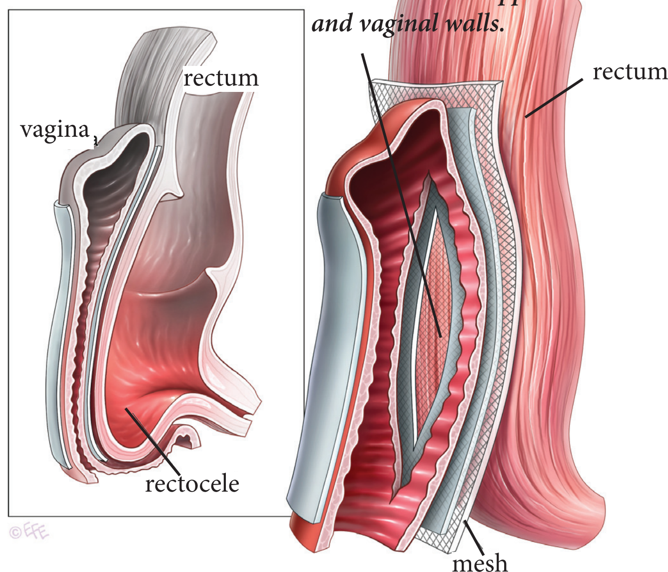

Fig. 2 Prolapse repair posterior compartment (rectocoele/enterocoele) using synthetic mesh. Mesh is placed under the skin and fascia to provide additional support.

There are different opinions among surgeons with regard to when mesh should be used. Some prefer to save the mesh only for selected situations like failure of a previous traditional surgery, management of a particularly large prolapse or in women with risk factors for recurrence. Others would use mesh for the initial surgery even without any particular risk factors. There is a consensus however that mesh surgery should only be performed by a specialist who has undergone training for performing these procedures. Prior to the surgery your doctor should fully explain what is involved in having the procedure and discuss the possible benefits and risks of complications with you as well as alternative ways (both surgical and non-surgical) of managing your prolapse.

What will happen to me after the operation?

When you wake up you will have a drip to give you fluids and may have a catheter in your bladder. Often the surgeon will place a gauze pack inside the vagina to reduce any bleeding into the tissues. Both the pack and the catheter are usually removed within 24 to 48 hours after the operation.

It is normal to get a white discharge for 4 to 6 weeks after surgery. This is due to the presence of stitches in the vagina. As the stitches absorb the discharge will gradually reduce. If the discharge has a bad smell, contact your doctor. You may get some blood stained discharge immediately after surgery or starting about a week after surgery. This blood is usually quite thin and old, brownish looking and is the result of the body breaking down stitches and blood trapped under the skin.

What are the chances of success?

The rate of success varies depending on the type of prolapse (cystocele versus rectocele, vaginal wall or vaginal apex), severity of the prolapse and the presence of risk factors for recurrence. Quoted success rates for vaginal mesh repairs are 80% to 95%.

Are there any complications?

With any operation there is always a risk of complications.
The following general complications can happen after any surgery:

Anesthetic problems

With modern anesthetics and monitoring equipment, complications due to anesthesia are very rare. Surgery can be performed using a regional (spinal or epidural) or general anesthetic; your anesthetist will discuss what will be most suitable for you.

Bleeding

Serious bleeding requiring blood transfusion is unusual following vaginal surgery. Mesh implantation may be associated with a higher rate of bleeding than traditional vaginal surgery according to previous clinical trials.

Postoperative surgical site infection

Although antibiotics are routinely given just before surgery and all attempts are made to keep surgery sterile, there is a small chance of developing an infection in the vagina or pelvis. Symptoms include an unpleasant smelling vaginal discharge, fever and pelvic pain or abdominal discomfort. Modern meshes used for prolapse repairs rarely become infected.

Bladder infections (cystitis) occurs in about 6% of women after surgery and is more common if a catheter has been used. Symptoms include burning or stinging when passing urine, urinary frequency and sometimes blood in the urine. Cystitis is usually easily treated by a course of antibiotics.

Injury of the urinary bladder, bowel or blood vessels

Surgical repair of prolapse involves the use of sharp instruments close to vital organs such as the urinary bladder, large bowel and major blood vessels that can potentially be injured. When surgery is performed by an experienced surgeon, the chances of this happening are small. Most injuries, if identified, can be immediately repaired although occasionally further surgery is required.

The following complications are more related to synthetic mesh implantations:

Mesh exposure

Some women who have had a vaginal repair with mesh will develop exposure of the mesh in the vaginal walls. It is estimated that this occurs following approximately 10-15% of surgeries using mesh. This can lead to vaginal discomfort especially during intercourse (for either partner) and blood stained 'spotting'. Mesh exposure through the vaginal skin is not considered a major complication. If mesh exposure occurs, it can be taken care of with the use of vaginal estrogen cream or a minor office or surgical procedure to re-cover the mesh. This may require another surgical procedure.

Buttock and groin pain

When mesh is used to repair the back wall of the vagina, it is not uncommon to have some pain in the buttock for the first few weeks after surgery. This will get better by itself, and you will be given pain killers. It is also quite common to get some stabbing or burning rectal pain that settles within a short time. If the pain is severe or not improving you should contact your surgeon. When mesh is used to support the anterior wall of the vagina mesh arms may be passed through the groin area and this can cause short term pain along the inner thighs/groin area. Rarely, this can become a longer term problem. If you suffer from chronic pelvic or bladder pain or have a pain-sensitive condition such as fibromyalgia, you should inform your surgeon during the pre-operative visits.

Constipation

Constipation is a common short term problem after pelvic surgery. Your doctor may prescribe stool softeners and/or laxatives for this. Try to maintain a high fiber diet and drink plenty of fluids to help as well.

Chronic vaginal pain and painful intercourse

Some women may develop chronic pain or discomfort in the vagina, either constantly or during sexual intercourse. Whilst every effort is made to prevent this from happening, it is sometimes unavoidable. The incidence of this complication is low and can occur following both mesh surgery and traditional surgery. Treatment may require further surgery if it does not improve with time or conservative therapy such as pelvic floor physical therapy.

When can I return to my usual routine?

You should be able to drive and be fit enough for light activities such as short walks within 2 weeks of surgery. We advise you to avoid heavy lifting and sport for at least 6 weeks to allow the wounds to heal. It is usually advisable to plan to take 2 to 6 weeks off work, your doctor can guide you as this will depend on your job type and the exact surgery you have had.

You should wait six weeks before attempting sexual intercourse. Some women find using additional lubricant during intercourse to be helpful following pelvic surgery. Lubricants can easily be bought at supermarkets or pharmacies.

We hope you have found this leaflet helpful. For more information on prolapse, urinary incontinence or post operative recovery visit our website at www.IUGA.org and click on the patient information section.

The information contained in this brochure is intended to be used for educational purposes only. It is not intended to be used for the diagnosis or treatment of any specific medical condition, which should only be done by a qualified physician or other health care professional.