Surgery for Severe Endometriosis

The aim of this leaflet is to explain the type of surgery you might be having, including the risks and complications. General information regarding endometriosis can be found in our endometriosis leaflet.

Surgery for severe endometriosis can be complex and may require input from other specialities such as colorectal surgery or urology. In most instances you will have the opportunity to meet with all the relevant specialists involved in your surgery.

Types of surgery: Two types of surgery are offered. Your doctor will discuss the type of surgery that is appropriate for you.

1- Laparoscopy (keyhole surgery) - this is the most common operation that we offer in our unit.
2- Laparotomy or open surgery - which involves a cut in the abdomen, usually along the bikini line, but in some cases it may be an “up and down” cut. This depends on the complexity of the case.

What is the aim of surgery?
The purpose of surgery is to make your symptoms better and/or to improve your chances of pregnancy.

How successful is the surgery?
In the vast majority of patients pain symptoms improved significantly and they remained well when followed up for 2 years after surgery. Surgery also showed improvement in pregnancy rates.
Unfortunately some patients will develop recurrence of symptoms after operation and this is seen in roughly 5-25% of patients when followed up for 2 years.

What does this surgery involve?
Surgery for severe endometriosis involves cutting away endometriosis from affected areas and freeing up of organs (adhesiolysis). In severe disease there might be involvement of important organs in the pelvis like the bowel, bladder, ureter and pelvic nerves. Surgery to remove endometriosis involves operating on or near these structures.

Below is a description of some of the procedures. It is important to understand that more than one organ may be involved and a combination of procedures may be required. Specific procedures may be required for endometriosis affecting the bowel, bladder and ureters**.**

Endometriosis involving the bowel.

This may involve any of the following procedures

- Adhesiolysis - this involves freeing of the bowel from endometriosis
- Shaving - includes cutting out the lesion from the surface of the bowel without entering the lumen (opening) of the bowel.
- Disc resection - involves using a circular stapler to cut away a small circular piece of the bowel.
- Anterior resection - a segment of the bowel is removed and the healthy ends are joined together using staples.

Endometriosis involving the bladder:

Endometriosis involving the bladder may require part of the bladder to be excised (partial cystectomy). Most of the lesions can be cut away without breaching the cavity, if the lesion has not gone too deep into the bladder. The bladder usually heals very well but you are likely to need a catheter for 7-14 days.

Endometriosis involving the ureters:

Ureters are the tubes that carry urine from the kidneys to the bladder. Most of us have two ureters - one on each side. If endometriosis involves the ureters it can cause compression and damage the kidneys. The majority of lesions involving the ureters are due to compression caused by endometriosis in the surrounding tissues. Such obstruction can be relieved by freeing the ureter (ureterolysis) and excising the lesion from the surrounding areas. In some cases a stent may be inserted to protect the ureters during surgery to allow healing of a traumatised ureter. This may be removed either at the end of surgery or after 4-6 weeks.

If the compression or stricture of the ureter cannot be relieved by ureterolysis (freeing ureter from lesion of endometriosis), this part of the ureter may be excised and the healthy ends are either joined together or where this is not possible, a new connection is made into the bladder (re implantation). This is very rarely required.

Most ureteric lesions can be treated laparoscopically (keyhole) but in some cases, open surgery may be required.

Risk and complication of surgery for severe endometriosis:

General risks:

- Risk related to the anaesthesia.
- Bleeding.
- Infection
- Blood Clots in legs and lung (DVT and PE)
- Conversion of a laparoscopy to an open procedure either due to severity of disease or to deal with a complication

- Late complications like infection, bleeding, haematoma (blood clot), port site hernias

Specific risks relating to different organs

Bowel

Complications involved in bowel surgery may be either during the operation (intra operative) or late (after the operation). The most common intra operative complication is unintended perforation of bowel (chance is less than 1in 100). In most patients the perforation can be repaired without any consequences. This is why we give “bowel prep” to patients undergoing such surgery so that such repairs can be carried out. In some patients a stoma may be needed to allow the repaired part of bowel to heal. A stoma is an opening in the stomach connecting the bowel to the outside to divert stools from going through the repaired part of the bowel, thus allowing it to heal in the meantime. The stool will be collected in a sealed bag attached to the opening in your tummy. This is usually a temporary measure and is reversed after a few weeks/months. In some cases, surgery may sometimes be converted to an open procedure (up and down or across cut in tummy)

Late complications following bowel surgery includes late perforation, anastomotic leakages (leaking of faeces from newly joined segments of bowel after anterior or disc resection), abscesses and rarely recto vaginal fistulas (connection between bowel and vagina - with faeces leaking through the vagina). These are rare and occur roughly in about 3 out of 100 bowel operations.

Anterior resection syndrome

This is a combination of different symptoms experienced by patients undergoing anterior resection. Symptoms include constipation, increased frequency of stools, urgency, incontinence to flatus (gas) or faeces, incomplete emptying and passing of small stools (fragmentation).

Increased frequency and incontinence to flatus have been the main symptoms noted in endometriosis patients after bowel resection.

Bladder and ureter

If you had a partial excision of bladder wall (partial cystectomy), a urinary catheter may be left in place for 7-14 days. We would always check if the bladder has healed by doing an x ray (cystogram). In rare instances where the healing has not taken place, the catheter may be left longer or you may be offered further surgery.

If you have a stent in place, this is usually removed after a few weeks. This might cause pain and infection.

Risks with ureteric surgery includes non- healing of the ureter leading to leakage of urine in to the tummy causing pain and ureteric fistula (urine leaks into the vagina). These are very rare and will usually require further surgeries (laparoscopic or open).

Other late complications include haematoma (blood clots), difficulty in voiding (*very rarely patients may experience long term problems with voiding after deep excision of endometriosis due to damage to pelvic nerves)*

Complications Table - (see References)

Peri operative Complications (during surgery) - 5%

Excessive bleeding	<10 in 1000
Unexpected bladder injury	<10 in 1000
Unexpected ureteric injury	<10 in 1000
Unexpected bowel injury	<10 in 1000
Risk of Stoma	0.5 - 20 in 100

Post-operative complications

Haematoma	<10 in 1000
Pelvic abscess	<6 in 100
Urinary leak	<8 in 1000
Bowel leak	<10 in 1000
Fistula	<4 in 100

What to expect after surgery:

You will be admitted to the hospital for 2-5 days depending on the type of the operation either laparoscopy (keyhole) or laparotomy, also if there are any complications during the surgery as mentioned above.

You will have a urinary catheter for 24 hours after the operation but you might need it for up to 14 days if you have had bladder surgery. You might have a drain (small tube) inserted through your lower abdominal wall to drain off any blood or fluid that may accumulate immediately after your operation, this will be removed before you leave hospital.

The recovery period following surgery is usually 4-6 weeks after the operation.

Getting back to normal:

Exercise:

Everyone will recover at a different pace but it can take up to 6 weeks for full recovery and heavy or strenuous exercise should be avoided until full recovery has been reached. If you would like further advice you can contact your GP.

Driving:

You should not drive for 24 hours after a general anaesthetic, and it can take up to 2 weeks after the operation until you are able to drive. We recommended that you contact your car insurer for advice.

Having sex:

You should usually allow 2 to 4 weeks after your operation before sexual intercourse. A small amount of light bleeding may occur but if it persists you will need to seek medical advice. If you've had any stiches in the vagina these may take up to 6 weeks to dissolve.

If this leaflet has not answered all of your queries, please feel free to speak to us during any consultation and we will be happy to assist you further.

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