Diagnostic / Operative Laparoscopy

Definition

A surgical procedure in which a fibre-optic instrument is inserted through the abdominal wall to view the organs in the abdomen and pelvic or to perform an operation. The term originated the mid 19th century term from Greek "*lapara*" (flank), plus -scopy.

Reasons for a laparoscopy

Since its origins in the early 20th century, laparoscopic surgery has come to present the cutting edge of many surgical techniques and is now at a stage where there are very few abdominal and pelvic operations that cannot be advantageously carried out via laparoscope. It is important to differentiate laparoscopy from procedures such as gastroscopy or colonoscopy that simply inspect the inside of the gastrointestinal tract. Laparoscopy gives me different but complimentary information to these other procedures. Laparoscopy is commonly used to investigate causes of pelvic /abdominal pain, difficulty conceiving, to test for blockages in the fallopian tubes, to clarify pathology suggested by pre-operative ultrasound or x-ray imaging and to perform a variety of intra-abdominal and pelvic operations that were previously performed through larger cuts in the abdomen. A diagnostic laparoscopy is frequently combined with hysteroscopy and curettage and cystoscopy.

Anaesthetic

Laparoscopy requires a general (sleeping) anaesthetic.

Preparation

Occasionally I require patients to take a mechanical bowel preparation (Fleet or Go-Lytely) to remove the residue from the bowel prior to the operation. This can make the operation safer and more easily performed by improving surgical access to the pelvis. You should get a good night's sleep and take all your routine medications. You will be advised from when to fast.

General anaesthetic generally requires a six hour fasting period. If you are unsure of when to fast from please contact my staff. It is important that you provide me with a comprehensive list of all your medications including herbal remedies and alternative remedies. Herbal remedies, aspirin and fish oil tablets can prolong post-operative bleeding in an unpredictable way and should all be brought to my attention. It is important that you stop aspirin and tablets such as clopidogrel (Plavix) for at least a week prior to the operation. If you have any concerns regarding the applicability of this to your individual circumstances, then please seek advice from me or another specialist physician. Often special arrangements need to be made for patients taking Warfarin.

Please shower carefully prior to the procedure and pay special attention to the umbilicus (belly button), removing all traces of fluff and debris. You might like to use an antibacterial soap (such as Gamophen) for this purpose. *Take out any belly button jewelry if possible.*

Duration of procedure

A simple diagnostic laparoscopy, that is, a fact finding procedure, might take as little as fifteen minutes although complicated operative laparoscopies may take as much as six hours. I will generally be able to give you a close idea of how long the operation will take due to your individual circumstances.

What happens during the operation?

You will be admitted to the overnight stay ward or day surgical ward prior to theatre. You will be visited by the anaesthetist prior to commencing the operation who will ask you questions about your general health and about any previous anaesthetic experiences. You will be asleep for the duration of the procedure. An intravenous line will be placed, usually in the back of one hand or at the level of the elbow. Whilst you are asleep the skin of the vagina and abdomen are treated with antiseptic solution and a small incision is made in the base of the umbilicus, through which the laparoscope is inserted.

The abdomen is inflated with carbon dioxide gas, as in its normal state there is no space within the abdominal and pelvic cavities, with which to see. The carbon dioxide gas provides a safe environment in which to effectively operate. A small amount of carbon dioxide gas is absorbed into your blood but this is rapidly breathed out. Other small incisions, most commonly around three, are made in the lower part of your abdomen. These incisions are not symmetrical owing to the typically asymmetrical nature of the patient's anatomy and technique required. It is usual, if you have not had a hysterectomy, to perform a dilatation and curettage (D&C) and/or hysteroscopy and/or cystoscopy at the same time as a laparoscopy.

The bladder will also be emptied at the beginning of the operation. The operation concludes by closing the skin wounds with stitches or skin adhesive.

Post-Procedure care

After leaving the operating theatre you will have a drip or intravenous line in you arm. This is to maintain your hydration as you will have been fasting prior to the procedure. You may also have an urinary catheter. You will be cared for in the Recovery area of the Operating Theatre which involves one on one care by a specialist member of the nursing staff. After one to two hours you will offered something to eat or drink if appropriate, be able to change back into your street clothes and arrangements will be made for your discharge. Most laparoscopies are performed as day surgery. However, if your recovery is slower or if you require help with pain relief, we will not hesitate to admit you if it is in your best interests.

Post Discharge Care

Most patients should be able to resume regular activities including driving within two to three days. There may be a dull non-specific pain across most of the abdomen. This is thought to be due to stretching by the carbon dioxide gas. The patient's reaction to this is extremely variable. Some patients may feel subjectively bloated for a period of weeks after a laparoscopy, or some patients feel nothing. The discomfort can be treated with non-steroidal anti-inflammatory medications such as Naprogesic or Nurofen in combination with Panadol, Panadeine or Panadeine Forte. You will probably have a small amount of vaginal bleeding due to the curette done at the start of the procedure. The next period usually occurs within four to six weeks and may not be the same as a regular period. Excessive bleeding, either from the vagina or from the wounds is very uncommon, although I am unable to give you an exact figure as to how long the bleeding with persist. You should notify me if you develop a fever (temperature greater than 37.5 degrees), pain or cramping that does not respond to regular doses of simple analgesics, bleeding involving clots or foul smelling vaginal discharge.

You will usually have from one or two stitches in each laparoscopy incision and these stitches will need to be removed around a week after your procedure.

Complications

Complications Specific to Laparoscopy

Laparoscopies are very common and the complication rates in my hands are very low. However, the following complications have been described after laparoscopy:

1. **Infection**
   Infection is rare. Infection of the wounds may not be apparent until days or weeks afterwards. This generally arises from the patient's own bacteria. The chance of a skin infection after a laparoscopy is around 2%.

2. **Damage to organs such as bowel, bladder or blood vessels (around 1/3000)**
   These sorts of problems are extremely unlikely in my hands. Most such problems are correctable during the surgery, using laparoscopic techniques, however very rarely if an operation can't be completed this way, a larger incision (laparotomy) is made if it is in your interests to do so. This will naturally mean several days in hospital rather than day stay.

3. **Failure to complete the procedure**
   I will conduct your laparoscopy with utmost skill and care, taking care to complete every part of the operation and to gain whatever information I need in order to fix your problem. However, sometimes if unexpected pathology is found, which requires a major deviation from the procedure that I have explained to you before, then I will simply end the operation and discuss my findings with you, in which case a further operation may need to be scheduled.

4. **Scarring**
   Some people are prone to developing lumpy scars. I am! More common in those of Asian or African background.

Results from Examination

Pathology results usually take at around forty-eight hours. A post-operative visit will be scheduled for after the procedure. At this stage I will remove your sutures if used and we will have a discussion regarding pathology and findings of the operation.