KEY-HOLE SURGERY

LAPAROSCOPIC SURGERY (OR KEY-HOLE SURGERY) is probably the most important advancement in surgical skills at the turn of the century.

The pioneers of laparoscopic surgery were gynaecologists. Prof Kurt Semm, a German gynaecologist, performed the world's first laparoscopic appendectomy in 1981. The first laparoscopic hysterectomy was performed by Dr Harry Reisch, an American, in 1989. Since then, we have witnessed quantum leaps in the technique of laparoscopic surgery for gynaecology and especially, general surgery.

The advantages of laparoscopic surgery are many, some of which are:

- Reduce pain of surgery, as the incisions are small, no more than 1 - 1.5 cm.
- Better visualization of the surgical planes, and hence more precise surgery and less bleeding.
- Reduce incidence of infection, both internal as well as wound infections.
- Faster recovery and early return to work as a consequence of all the above factors.

However, there are disadvantages.

- The surgeon has to adapt new methods of surgery as this is now carried out with long fine instruments.
- There is a learning curve as the surgeon needs to change the visual perception of the operating field. Good hand-eye coordination is essential. This learning curve varies with the experience of the surgeon as well as the type of surgical procedure.
- It must be stressed that there are limitations to what can be achieved in laparoscopic surgery. These limitations are varied, and are dependent on the capabilities of each surgeon. Experience and training are important considerations. However, there are finite surgical situations where it will be inexpedient to do it as in very large tumours, and advanced cancers, to name a few.

In gynaecology specifically, for the purpose of accreditation, laparoscopic surgery is categorised into 3 levels.

Level I involve diagnostic procedures, tubal ligation and treatment of mild pelvic adhesions.

Level II consists of surgical removal of simple cysts, fibroids, moderate adhesions, and management of ectopic pregnancy.

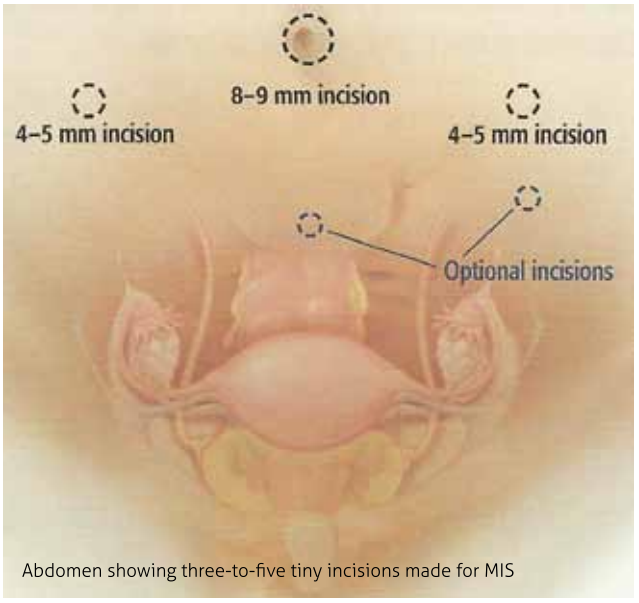
Level III would be categorized as advanced laparocopic gynaecological surgery. Removal of large complex ovarian tumours, large firoids, severe endometriosis, and hysterectomy for benign disease as well as preinvasive and early stage cancers of the womb fall into this level.

95% of benign diseases can be managed by laparoscopic surgery.

There are 2 sets of complications involving laparoscopic surgery. The first are complications relating to entry into the abdominal cavity at the start of the surgery via the umbilicus. These complications are not common, and usually implicate perforations of the stomach or intestines, and injury to blood vessels. 'Blind' trocar entry via the umbilicus was the method taught to all gynaecologist in training. But in present day practice, the 'open' entry (Hasson's technique) is preferred, as it is visual. Incidentally, this is the common method used by the surgeons.

The second set of complications involves the actual surgery of the disease. Much like open surgery, injury to adjacent organs and blood vessels can occur. Infection of the surgical site is much less common than in open surgery as tissue handling is minimized, and the surgical environment is further protected by the CO_2 induced pneumoperitoneum (abdominal distension).

Laparoscopic surgery in gynaecology is a boon to women, as early recovery and return to 'work' is probably the most important advantage in respect of family and career. However, there are limitations, and patient expectation must be tempered. ■



Abdomen showing three-to-five tiny incisions made for MIS

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