

Hysterectomy is the most frequently performed major surgical procedure in gynaecology and is associated with a 4% risk of severe complications. Hysterectomy rates for benign conditions are decreasing in the United States,<sup>1</sup> Canada,<sup>2</sup> and Australia,<sup>3</sup> though a similar trend is not evident in Hong Kong. According to a recent Territory-wide O&G Audit Report,<sup>4</sup> there was a nearly 50% increase in the number of hysterectomies performed for such indications, from 3376 in 1994 to 5048 in 2004.

### Indications

In this issue of the Journal, Leung et al<sup>5</sup> report an audit on hysterectomy for benign diseases in Hong Kong public hospitals. Uterine fibroids and menorrhagia were the two most common indications for abdominal or laparoscopic hysterectomy. It is difficult to define objective markers for validation of the indications, because some of them may not be amenable to confirmation by the pathological examination of the surgical specimens.<sup>2</sup>

New technologies are emerging for conservative surgical management of abnormal uterine bleeding and fibroids. A less invasive alternative treatment for symptomatic fibroids could particularly benefit young women, and those with a vascular pelvis, who are at risk of severe complications during and after hysterectomy.<sup>6</sup> However, to replace hysterectomy, less invasive treatments for dysfunctional uterine bleeding (including various modes of endometrial ablation and resection) must also achieve the current low levels of clinical complications.<sup>6</sup>

For women with common pelvic problems, hysterectomy was independently predicted by multiple pelvic symptoms or symptomatic fibroids (hazard ratio [HR], 2.0), previous use of a gonadotrophin-releasing hormone agonist (HR, 2.5), and an absence of symptom resolution (HR, 2.2).<sup>7</sup> These three easily measured clinical characteristics can be used for informed counselling regarding the likely success of alternative treatments.

### Approach

The approaches to hysterectomy can be broadly categorised as: abdominal hysterectomy (AH), vaginal hysterectomy (VH), and laparoscopic hysterectomy (LH). The latter can be further sub-categorised into three: laparoscopy-assisted vaginal hysterectomy (LAVH), laparoscopic hysterectomy, and total laparoscopic hysterectomy.

In a recent meta-analysis to evaluate the most appropriate surgical approach to hysterectomy, 27 trials were reviewed.<sup>8</sup> Significantly speedier return to normal

activities and improvements in terms of other secondary outcomes (shorter duration of hospital stay and fewer unspecified infections or febrile episodes) suggest that VH is preferable to AH, provided that it can be performed safely. Appropriate prophylactic use of antibiotics was recommended to minimise febrile episodes.

A laparoscopic approach may be appropriate if an oophorectomy is needed. However, whether LH can allow identification of pelvic disease that might affect subsequent clinical outcomes or otherwise lead to complications during VH remains uncertain.<sup>9</sup> Similarly, whether LH can achieve meticulous haemostasis, so as to reduce pelvic haematomas or vaginal cuff infections is also unclear.<sup>9</sup> Compared to VH, LH also had a number of disadvantages, including: longer operating times, greater use of oral pain medications on day two, and higher hospital costs.<sup>9</sup>

Where VH is not possible, LH may help to avoid AH, but the former confers a greater chance of bladder or ureteral injury,<sup>8</sup> which can happen during dissection or whilst using stapling devices. Besides, insertion of a trocar may cause injury to an abdominal wall vessel and/or intestinal herniation.

Despite evidence suggesting that the majority of hysterectomies can be performed vaginally, the proportion of women undergoing VH in Hong Kong was low (16%).<sup>5</sup> Preference for the abdominal approach may be based on factors other than clinical considerations, and include the surgeon's experience and expertise with the different approaches. One important benefit of introducing LH into gynaecological training has been to increase the confidence and skill of trainees in performing vaginal surgery, thus making VH a more feasible option.<sup>9</sup>

Because an abdominal procedure is avoided and as long as LH is performed by a properly trained surgeon for appropriately selected cases, it is a safe procedure with clear advantages for the patient.<sup>2</sup> Findings of the audit reported by Leung et al<sup>5</sup> are encouraging. Most LH operations were performed either by a surgeon with an advanced level of accreditation for such surgery or with assistance by a suitable specialist.<sup>5</sup> In Hong Kong, the proportion of all hysterectomies performed as LH procedures increased from 5.6% in 1999 to 14.3% in 2004.<sup>4</sup> By contrast, a recent study in California revealed that the proportion of all hysterectomies performed as LAVH peaked at 13.0% in 1995 and then steadily declined to 3.9% in 2003.<sup>1</sup> Such trends for LH also deserve study in Hong Kong.

The main reason for not performing a subtotal hysterectomy is to prevent cervical cancer.<sup>2</sup> Compared

to total hysterectomy, subtotal hysterectomy is associated with shorter operating times, less preoperative bleeding, and fewer intra-operative and postoperative complications, though it is associated with more urinary incontinence, prolapse, and cervical stump problems.<sup>10</sup> A subtotal hysterectomy for benign disease may be preferable for a patient who has always had normal cytological findings and perceives that sexual function may be affected by removal of the cervix.<sup>2</sup>

In clinical practice, the approach to hysterectomy depends on individual patient characteristics, including: uterine size and descent, extrauterine pelvic pathology,

prior pelvic surgery, body mass index, parity, the imperative for oophorectomy and removal of the cervix, and personal preference. The surgical approach should be mutually agreed, after discussing all known benefits and risks with the patient.

**KY Leung**, FRCOG, FHKAM (Obstetrics and Gynaecology)  
E-mail: leungky1@ha.org.hk  
Department of Obstetrics and Gynaecology  
The University of Hong Kong  
Queen Mary Hospital  
Hong Kong

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