

Current Status and Related Problems of Gynecological Endoscopy

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Keywords: Gynecological Endoscopy, Problems and Countermeasures, Develop Trend

Abstract: In the 21st century, revolutionary changes marked by biomedicine, organ transplantation and minimally invasive treatment are rapidly creating a pattern of modern medicine, changing the way of thinking and traditional models of clinical medicine. Minimally invasive concepts, minimally invasive techniques and minimally invasive treatments have been widely integrated into all areas of clinical medicine. The minimally invasive surgery represented by hysteroscopy and laparoscopy in gynecological clinics has sprung up.

1. Introduction

Since the first successful laparoscopic hysterectomy and pelvic lymphadenectomy in 1987, gynecological laparoscopic surgery has continued to develop; in recent years, hysteroscopy has also developed rapidly. The clinical application and rapid spread of gynecological endoscopy not only changed the doctor's thinking, technical route and operation skills, but also gradually became a new model of gynecological surgery, but with the increasing popularity of laparoscopic surgery, its surgery Indications continue to expand, and the incidence of complications has also changed. Therefore, it is necessary to promptly invite the attention of gynaecologists, especially gynecologic endoscopic surgeons, to guide clinical work.

2. Gynecological surgery has become a clinical routine

More than 90% of gynecological operations can be performed by endoscopy compared with traditional open surgery. Laparoscopic surgery extends the operating range of the clinician's arm through a miniature long rod instrument, and the anatomical level and blood vessel distribution are clearly identified by the magnification of the lens body. Reduce intraoperative bleeding and adjacent organ damage; tiny abdominal wall incision and closed surgical environment make the surgical field clear, less bleeding, and faster recovery. (1) Laparoscopy is the first choice for benign pelvic lesions. Clinical practice shows that laparoscopic surgery has unparalleled therapeutic advantages for various types of accessory surgery, endometriosis, uterine fibroids and gynecologic acute abdomen. Whether it is the plasticization and stoma of the fallopian tube, ovarian cystectomy and pelvic adhesion separation, endometriosis and adenomyosis, uterine fibroids and pelvic floor dysfunction, laparoscopic can comprehensively observe the extent of the lesion, separation Adhesive resection of lesions, integration of diagnosis and treatment, to achieve fine operation and precise treatment. (2) Laparoscopic malignant tumor surgery is becoming more and more popular. Gynecologic malignant tumor treatment has risen from the traditional extension of patient survival time to a higher level of improving patient quality of life and maintaining patient health. Advocating micro-trauma and retaining organs-physiological fertility has become an important connotation of humanized treatment. Endoscopic surgery has been popularized for staging and extensive resection of malignant tumors. 1 Staging surgery for laparoscopic endometrial cancer is a relatively mature surgical procedure. Retrospective studies have shown that the proportion of laparoscopic surgery for endometrial cancer is increasing significantly, and local areas are much higher than open surgery. Me-ta analysis showed that the overall survival rate, tumor-free survival rate, perioperative mortality, and recurrence rate of laparoscopic endometrial cancer patients were comparable to those of open surgery; laparoscopic group, pelvic and abdominal aorta There was no significant difference

in the number of lymph node dissections from open surgery. The postoperative complication rate in the laparoscopic group was significantly lower than that in open surgery. Laparoscopic cervical cancer extensive hysterectomy is gradually popularized. From the clinical outcome, laparoscopic surgery and laparoscopic surgery and robotic surgery are basically equivalent in the treatment of early cervical cancer; even in advanced cervical cancer, laparoscopic peritoneum can be performed. The preoperative staging of posterior lymph node sampling is helpful for accurately assessing lymph node status and avoiding false negative results of imaging examinations, and also provides a basis for exploring and guiding follow-up treatment. Hysteroscopy is the "gold standard" for the treatment of uterine cavity disease. Hysteroscopic treatment of uterine cavity occupying, intrauterine adhesions, uterine malformations and abnormal uterine bleeding and other diseases, while retaining organs, while protecting and restoring reproductive function, does not destroy the pelvic anatomy, does not affect the ovarian endocrine function, so that young Patients who cannot tolerate open surgery have a chance to heal, and are known as safe, effective, and micro-trauma as a model for natural endoscopic surgery.

3. "Old" problems and new understanding in endoscopic diagnosis and treatment

Although the use of laparoscopy in ovarian malignancies has been reported frequently, and in the early ovarian cancer showed the same efficacy and lower complication rate as open surgery, but laparoscopic surgery by instruments, lesions The scope and experience of the surgeon are limited. For ovarian malignant tumor surgery, there may be: (1) the risk of tumor rupture increases. A review of 1545 cases of laparoscopic ovarian cancer surgery, about 8% of tumors in the intraoperative rupture caused by increased staging, not only increased the cost of additional treatment, but even affected the survival of patients. (2) Puncture hole tumor implantation. A small sample reported a 50% incidence of puncture hole metastasis in laparoscopic ovarian cancer; in a large sample (2251) clinical review, 75% of cases with laparoscopic puncture were from ovarian cancer. In view of this, the advantages and disadvantages of laparoscopic and open laparoscopic treatment of ovarian cancer (FIGOI phase) can not be evaluated; the AGE/AGO guidelines in Germany are cautious about laparoscopic surgery for ovarian malignancies, not recommended Laparoscopic staging of ovarian malignancies. At present, laparoscopic surgery has been applied in the secondary exploration and cytoreductive surgery of advanced ovarian cancer, but the application in primary advanced ovarian cancer is limited.

The "convenience" and "hidden danger" of the fibroid pulverizer The recent fibrillator "wind wave" has received considerable clinical attention. The fibroid revolver is a component of the laparoscopic surgical instrument. It has been used for a long time in clinical practice. It pulverizes the excised fibroids and uterus tissue and removes them through the tiny puncture hole, avoiding the damage caused by the enlarged incision. However, due to the possibility of encountering about 0.28% of uterine sarcoma during uterine fibroids removal, the smashing of the circulator will undoubtedly cause occult tumor spread and affect the prognosis. In the empathy, if you do a careful preoperative examination, choose the appropriate indications, and avoid giving up because of "disposal of food". Clinical studies reviewed the findings of postoperatively confirmed uterine sarcoma, and these cases had evidence of suspicious malignancy before surgery. Therefore, the "crime" of tumor dissemination should not be attributed to the use of the rotary cutter. The American Association of Laparoscopic Physicians (AAGL) makes the following recommendations for the rotary cutter: (1) The rotary cutter should not be used for known malignant tumors and precancerous lesions or for surgery that may pose a risk. (2) The risk of using a rotary cutter should be explained to the patient as informed consent. (3) Try to use the rotary cutter in the specimen removal bag.

4. Changes in indications for hysteroscopic surgery

Best indications: including dysfunctional uterine bleeding, endometrial polyps, submucosal uterine fibroids, intrauterine adhesions, intrauterine foreign bodies, and uterine malformations. The

combination of circular electrode and roller ball hysteroscopic endometrium (TCRE) is the first generation of endometrial removal technology, which is the standard of hysteroscopic surgery for the most commonly used and dysfunctional uterine bleeding. The second generation of hysteroscopic endometrial ablation in recent years, including cryotherapy, radiofrequency, circulating hot water, emitting laser, microwave, hot ball system and photodynamic therapy, no hysteroscopy except circulating hot water Monitoring can be done at the clinic. The second-generation hysteroscopic endometrial ablation is performed under non-direct vision, so there is still a risk of uterine perforation, especially inexperienced operators]. Hysteroscopy is not only the most accurate method for diagnosing uterine malformation and intrauterine adhesions, but also the best means of treating uterine malformation and intrauterine adhesions.

General indications include infertility, early submucosal uterine fibroids, ectopic pregnancy, and tubal sterilization or in combination with other minimally invasive treatments. Hysteroscopy can diagnose ectopic pregnancy by identifying or excluding intrauterine pregnancy, as well as successful cases of hysteroscopic removal of the tubal interstitial gestational sac. It was also reported that the insertion of a tiny device into the fallopian tube by a hysteroscope blocked the fallopian tube and succeeded as a means of sterilization. Hysteroscopy combined with other minimally invasive treatments will become the trend of intrauterine treatment in the future. For example, combined with uterine artery embolization for the treatment of submucosal or interstitial uterine fibroids; combined with laparoscopic treatment of double-horned uterus and multiple uterine fibroids; combined with non-invasive high-energy focused ultrasound hyperthermia, inactivated muscle Tumor tissue, etc. Relative indications: hysteroscopic surgery including difficult uterine fibroids, such as type II submucosal fibroids, diameter >5 cm or multiple submucosal fibroids, myometrial intrauterine device fragments, intrauterine Membrane atypical hyperplasia, early treatment of endometrial cancer, etc., the latter clinical treatment is still in the exploration stage, but it has attracted people's attention, I believe that this aspect of research will gradually increase.

Although hysteroscopic surgery is safer, cases of uterine perforation and even further damage to the intestines still occur. Complications of hysteroscopic surgery have a lot to do with doctor experience. Rare serious complications include hyponatremia encephalopathy and venous air embolism. If it can be strictly prevented, some can be avoided. The key to preventing complications of hysteroscopic surgery is still to pay attention to the choice of indications, the basic operation of endoscopic surgery and the training of surgeons. Most serious complications occur in the primary stage of beginner's surgery. Therefore, hysteroscopic surgery should be carried out step by step, and should not be rushed for success. Minimally invasive is the concept that runs through clinical practice. Endoscopic surgery is a minimally invasive procedure but cannot replace all treatments. When we choose to perform an operation, we can't just focus on the patient and its disease, but ignore the assessment of our clinical qualifications and competent surgical ability. I can't imagine a doctor who has not done laparoscopic surgery or just tried laparoscopic surgery. Risk factors for laparoscopic extensive hysterectomy and pelvic and abdominal lymph node dissection, although they have extensive experience in open surgery; similarly, the underestimation of the difficulty and complexity of hysteroscopic surgery is also the clinical occurrence of frequent fluid overload Load-hyponatremia - the source of lung edema and air embolism death. Therefore, it is a wise move for the surgeon to choose a competent surgical approach and method to avoid secondary damage. "Any surgical technique and surgeon should not use surgery as a technique or device to show off. In this, the key is the surgeon, not the surgical procedure."

5. Conclusion

It is also the main work content of the Obstetrics and Gynecology Society to carry out standardized training for endoscopic surgeons and improve the comprehensive skills of the health authorities. At this stage, various forms of academic seminars, video broadcasts, etc., while opening up various channels of theoretical communication and skill training for clinicians, have also greatly promoted the comprehensive skill level of clinicians. The safety of endoscopic surgery depends on the theoretical level of the clinician, the accumulation of experience, skills and skills, and the ability

to prevent and respond to complications. Only by continuous learning can we gradually develop and progress.

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