Gynecol Surg (2004) 1:63–65
DOI 10.1007/s10397-004-0005-4

EDITORIAL

D. Wallwiener · S. Becker

Perspectives in gynecologic surgery: past, present and future

Published online: 10 February 2004

As health systems around the world change and financial and social demands on physicians grow, surgical gynecology as all of medicine is at a critical juncture. Shrinking funds, cuts in staff, a tougher business environment and more demanding patients all pose important problems and challenges.

Gynecologic surgery and gynecologic surgeons are facing these challenges from a position of strength. We owe this strength to three currents that have helped to decisively shape our specialty over the past 20 years and will continue to do so in the future: innovation, multimodality and the philosophy of minimal trauma and organ preservation (Fig. 1). These three principles embody the spirit of modern gynecologic surgery.

Innovation is the basis of everything else. All of endoscopy is based on the continuous improvement and perfection of existing technology as well as the invention of new devices and techniques. Better endoscopic instruments, better optical and electronic systems, better intraabdominal recovery mechanisms, better distention media: innovation is key. But innovation is a tool. It is not an end in itself; rather, it enables us to achieve what we really want to do.

The second pillar of modern gynecologic surgery is multimodality: working together within our field and with other specialties. While this seems self-evident now, it is the consequence of a gradual change that has been occurring in all areas of medicine over the past 20 years: working together for the good of our patients. At the end of the 19th century, surgeons were on their own. When the knife could not cure, there was little hope. The introduction of the radical hysterectomy by Wertheim is one such example. It was only during the second half of the 20th century that radiation therapy and surgery joined hands to treat patients together. Today the therapy of cervical cancer is a multispecialty endeavor, involving surgery, radiation oncology and chemotherapy. And within the surgical aspect of treatment, the options are more diversified thanks to endoscopy. Endoscopy allows for minimally traumatizing examination of lymph nodes (Fig. 2) at one end of the spectrum, often as a prerequisite for radical exenterative procedures involving urologic and gastrointestinal surgery at the other end of the spectrum. Radiation is beginning to become part of surgery, requiring ever closer collaboration: intraoperative radiation therapy allows for maximal effect with minimal radiation trauma—innovative, multimodal solutions for a complex and challenging disease.

Finally, the current success of gynecological surgery owes much to a concept that has been an integral part of the development of endoscopy for over 25 years: the desire to minimize surgical and therapeutic trauma. Minimal access, organ preservation and reconstruction are key words in this completely new approach that has become the center of modern gynecologic surgery (Fig. 3). At the center of this new philosophy is a profound respect for the integrity of our patients, for their wishes, their desires and their self-image.

There are many examples. Uterine preservation is just one of them: laparoscopic and hysteroscopic myomecto-

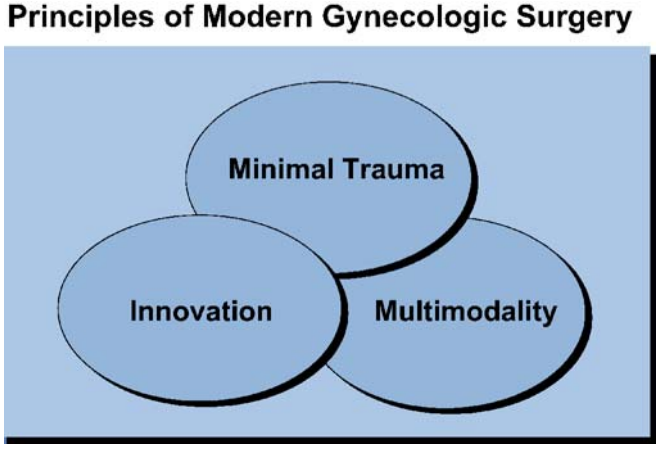

Fig. 1

D. Wallwiener (✉) · S. Becker
Universitätsfrauenklinik Tübingen,
Calwerstrasse 7, 72076 Tübingen, Germany
e-mail: diethelm.wallwiener@med.uni-tuebinge.de

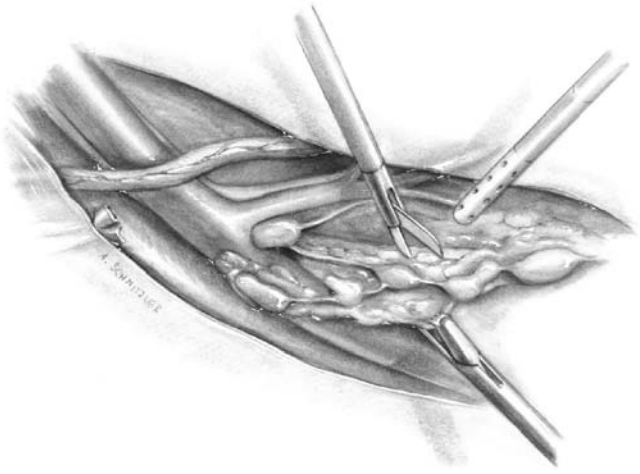

Fig. 2

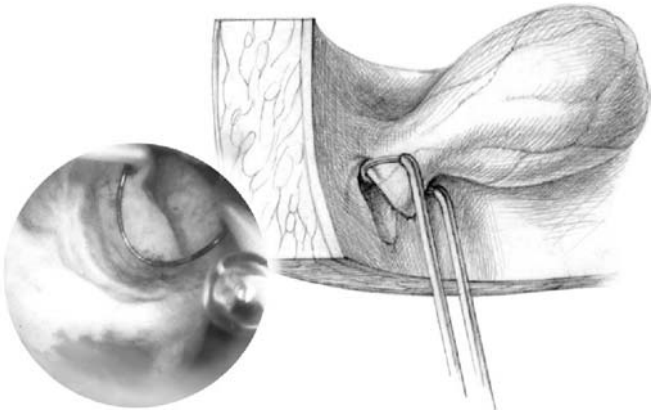

Fig. 4

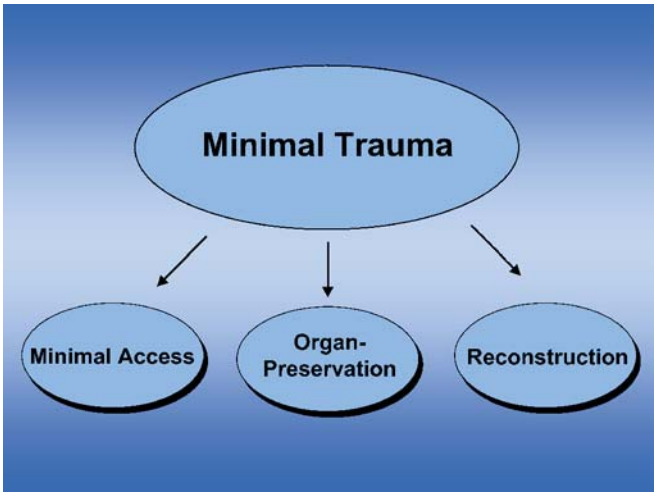

Fig. 3

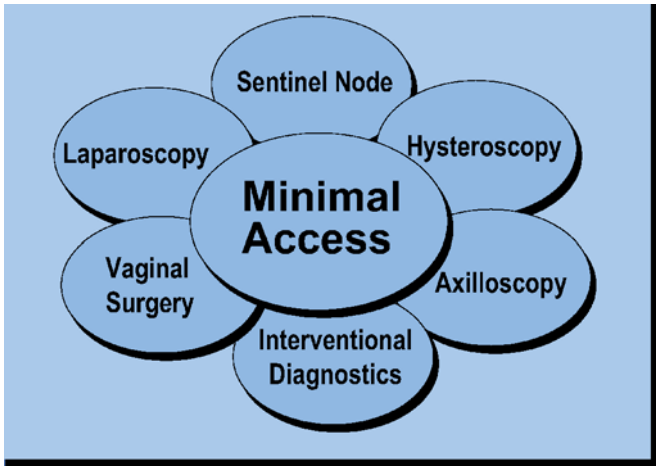

Fig. 5

my enable us to treat uterine disease while preserving or even improving our patient's ability to bear children. Hysteroscopic access, following the anatomic route, is probably the most atraumatic way to operate on the uterus (Fig. 4). Endometrial ablation offers an alternative to hysterectomy. All of these are examples of organ preservation and minimal trauma going hand in hand. It has been clearly shown that the increasing frequency of these minimally invasive surgical techniques correlates directly with the number of uterus-preserving surgeries. Preservation of the uterus does not only give our patients more choices and allows women to retain their female body image. It also means: no laparotomy, no major surgery, less time in the hospital, less sick time, fewer long-term complications and less pain.

However, minimally invasive and minimally traumatizing surgery is not just endoscopy but also vaginal surgery (Fig. 5). Already the vaginal hysterectomy, the historical basis of all gynecologic surgery, exemplifies the concept of minimally invasive and minimally traumatizing surgical techniques. It is no coincidence that we have been witnessing a renaissance of vaginal surgery. More indications for vaginal surgery, the rediscovery of vaginal pelvic floor repairs (for example the vaginal–paravaginal colpopexy) as well as innovative vaginal sling procedures such as TVT have created exciting new opportunities for the vaginal, i.e. the gynecologic surgeon. In fact, it is the integration of endoscopic surgery with abdominal or vaginal procedures that has been particularly beneficial.

Another example for the paradigmatic change towards minimal trauma and organ preservation in gynecology is the evolution of breast cancer treatment. Starting with Halstead's radical mastectomy, we have now moved to breast-conserving surgery as the new gold standard: In more than two thirds of patients with breast cancer the breast can now be conserved. Here as in other fields, progress was possible only thanks to a multimodal and multispecialty approach: breast-conserving surgery, radiation therapy, neoadjuvant and adjuvant chemotherapy, hormonal therapy and more reconstructive surgical options with autologous flaps. Many specialists, one goal: to

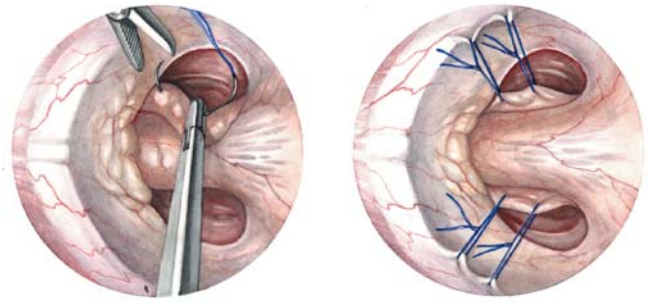

Fig. 6

provide the best treatment for each individual patient. And the progress continues: The sentinel node approach further minimizes surgical trauma. Interventional diagnostic techniques such as vacuum biopsies are helping to further decrease surgical trauma, particularly with benign disease.

Vaginal approach, endoscopic access (Fig. 6—endoscopic colposuspension) and breast conservation: all these developments are no coincidence but the result of a profound respect for our patients. All of these techniques were pioneered in gynecology. Gynecologic surgeons have been at the forefront of the drive for minimal trauma in surgery. Not surprisingly, endoscopy is part of most, if not all, of these new treatment strategies.

Gynecologic surgery is stronger now than it has ever been. We are able to offer our patients a variety of comprehensive diagnostic and therapeutic options for all gynecologic problems. We are able to do so because of these three pillars of modern gynecologic care: innovation, multimodality and minimal trauma. The general condition of the patient, her personal expectations and wishes such as desire for future fertility, desire for plastic reconstruction, for sexual self-esteem; all these can be taken into consideration. The wholeness and bodily integrity of our patients can be preserved and the disease can still be optimally treated.

What must be done in the years ahead? (1) Further innovation is needed to further improve existing surgical techniques. (2) We must continue to integrate our surgery into multimodal and multispecialty therapeutic concepts. (3) We must further decrease both diagnostic and therapeutic trauma to ease the pain of disease and improve the quality of life of our patients. We have to continue to push ahead our specialty on the basis of evidence-based medicine. And there are many opportunities. Today, gynecologic oncologists collaborate with radiation oncologists and oncologic surgeons; tomorrow, we will have to integrate new immunologic and molecular-biologic therapeutic solutions in our treatment approach. Today, we are pushing the limits of endoscopy; tomorrow, we will have to integrate robotics into our field.

However, this multiplicity of opportunities, of what can be done, poses new challenges. On the one hand we are seduced by the technical aspects of our field and risk ignoring the human aspects of our daily work. Let us remember that, no matter how much technology we use to cure our patients, we are also expected to care, to comfort and to console. Curing and caring remain the basis of all medical science. On the other hand, as we are successful, the expectations of our patients and of society as a whole continue to grow exponentially. We know that some of these expectations cannot be met. What we could do is not always what we can do. And what we can do is not always what we should do. That is the conflict of all medical progress. Economically, we must ask: Can society afford it? Ethically, the new therapeutic options of genetic medicine raise the question: Should society allow these new techniques?

We believe that a humane and ethical medicine, high quality of medical care and a sound financial basis do not contradict each other. Innovation can bring costs down. Minimally traumatizing surgery can decrease time spent in the hospital and preserve the ability to work. Multimodal approaches can use synergies and can help to increase productivity, also in the health sector.

Gynecologic surgery and gynecologic surgeons can be proud of their achievements. So, despite the difficult situation of our health systems as a whole, we have every reason to look forward to the future with confidence. Every challenge contains opportunities and risks. The field of gynecologic surgery as the originator of minimal invasive surgery is ready for the challenge.