

Emotional Responses to Videolaparoscopic Surgery

A. Ostrzeński

Premier Ambulatory Surgical Center of Washington, Washington, DC, USA

Abstract

The emotional aspects of surgery in general are presented. The psychological advantages of advanced videolaparoscopy over classical laparotomy in gynecological surgery are described. Analysis of the existing literature and comparison of endoscopic surgery to laparotomy clearly indicate that many aspects of common emotional response such as surrender of control, depersonalization, helplessness, anxiety, fear of pain, and fear of loss of identity will be minimized to some degree. Videolaparoscopy can eliminate the classical laparotomy approach in 90 to 95% of all gynecological surgical treatment. Organ preservation rather than organ removal will be emphasized and it is this fact in itself which will tremendously reduce the negative emotional response to surgery.

Zusammenfassung

Die emotionalen Folgen chirurgischer Eingriffe im allgemeinen werden dargestellt. Die psychologischen Vorteile der neuentwickelten Videolaparoskopie über die klassische Laparatomie in der gynäkologischen Chirurgie werden beschrieben. Die Auswertung der Literatur und der Vergleich der endoskopischen Chirurgie mit der Laparatomie zeigt klar, daß viele emotionale Reaktionen wie Kontrollverlust, Depersonalisation, Hilflosigkeit, Angst, Schmerzreaktionen und Angst vor Identitätsverlust in beträchtlichem Ausmaß verringert werden können. Videolaparoskopie kann die klassische Laparatomie in 90 bis 95% aller chirurgischen Eingriffe in der Gynäkologie erset-

Correspondence to: Adam Ostrzeński, M.D., Ph.D., Premier Ambulatory Surgical Center of Washington, 1002 22nd. St. N.W., Washington, DC 20037

Paper presented at the 10th World Congress of the International Society of Prenatal and Perinatal Psychology and Medicine (ISPPM) "The Unborn Child Within the Family", Cracow, Poland, May 15–17, 1992.

zen. Organerhalt wird angestrebt und gerade dieser Punkt vermindert die negativen emotionalen Reaktionen auf den chirurgischen Eingriff.

*

The World Health Organization's definition of the word "health" is not merely the absence of disease but also includes an individual's physical, social and emotional well-being. In the patient-surgeon relationship, the patient's emotional response to physical dysfunction and surgery is an inseparable factor which must be emphatically stressed as an integral part of any pre-surgical consultation.

Massler and Devanesan¹⁰ have introduced the theory that, to any physical assault on the body (surgery is considered as such), there is an emotional reaction. In order to fulfill the patient's expectations, the surgeon (and in this case the pelvic surgeon) must be not only a competent surgical technician but also a professionally efficient physician able to cope with the patient's feelings and anxieties.

Freeman⁸ has listed the following 15 common emotional responses to surgery: 1. insecurity and vulnerability; 2. surrender of control*; 3. sense of being manipulated; 4. depersonalization (hospital)*; 5. helplessness*; 6. feelings of being attacked; 7. anxiety*; 8. fear of dying (which can be expressed as fear of anaesthesia); 9. fear of pain*; 10. fear of loss of identity (role, independence, attractiveness)*; 11. fear of the unknown; 12. emotional lability, sadness, tearfulness, inevitability*; 13. regression and dependency*; 14. a feeling of illness – a state of nonhealth ("sick role")*; 15. grief*.

Emotional healing begins with grief, which is a natural reaction and a response to stress. Denial, bargaining with God, guilt, depression, anger, and finally resolution-integration are well-defined stages of grief which make this otherwise incomprehensible human behaviour which occurs under stress understandable.

Gynecological diseases are unique in their nature, since they affect not only one's emotional being through sexual identity, body image and self-esteem, but also one's physical and social life, in particular one's sex life. The genital organs are the most important factors in one's sexual identity. This specific emotional significance when related to gynecological surgery must therefore be emphasized. In order to help a person deal with the process of grief, physicians must learn how to deal not only with the anatomical, physiological, and pathological aspects of their patients, but also with the magical and symbolic value of their patient's genital organs. For the majority of women, the uterus is related to menstruation. Menarche is considered a passage into feminine adulthood, the time when a girl feels that she has become a woman. The rhythm of the menstrual cycle provides a sense of routine, regularity and predictability which lead to her emotional stability. For this reason, the place of the uterus in a female's emotional life is of significant symbolic importance.

For most women, regardless of their level of education, the uterus as a sexual organ is a symbol of sexual response and sexual gratification as well as a sym-

* Endoscopy minimizes the emotional effect of gynecological surgery to some degree.

bol of the biological capability of reproduction. In addition to the uterus, the breasts, external genitalia and internal genital organs are a unity that correlates with the patient's image of attractiveness, sexual desirability, self-identity and child-bearing capacity. In order to preserve this image, the health of the patient's reproductive organs is essential. Surgical removal of any of the genital organs, particularly the uterus, negatively influences the patient's self-concept of femininity (Wolf¹⁹). The less prepared the patient is for such a surgical intervention, the more emotionally disturbing an effect may be anticipated (Benedict³). In 1962, Melody¹¹ published his observation on depressive reaction following hysterectomy, and stated: "The social roles available to an individual, as well as one's body image, self-concept of self-evaluation, are to a large degree determined by the social contact organs and their symbolic meaning to the individual."

In analyzing all aspects, one may conclude that the patient feels her uterus is an essential emotional and social symbol and thus, removal of the uterus may lead to several functional and emotional disturbances.

After a hysterectomy a woman may feel sexually dysfunctional, as if she has lost her attractiveness and sexual desirability. This constitutes a feeling of de-sexing, the destruction of her identity as a female. The loss of the ability to conceive may lead to feelings of losing one's femininity symbolically. Hysterectomy leaves a woman with emotional disturbance and feeling after surgery of a hole left in her body⁶.

Taking into consideration that in the United States alone, hysterectomy is one of the most common surgeries performed during the reproductive age, Dicker et al.⁷ reported that from 1970 to 1978 more than 3.5 million women ranging in age from 15–44 were subjected to hysterectomy; abdominally in 72% of women and vaginally in 28%. Barnes and Tinkham² explored the surgeon's influence on patient's emotional responses to surgery and concluded:

"Surgeons tend to be activists rather than empathetic listeners and many of them need to distance themselves from the patient's feelings and fears as a kind of protective insulation against the things they see every day. Some do not hear the patient and instead relate to a uterus or a breast or an appendix, not a human being in distress. At times one observes a kind of cut-and-run syndrome in some surgeon-patient relationships. There are also doctors with a tendency to react to their patient's problems in terms of their own personal and moral value system."

These findings strongly suggest that the surgeon can influence the patient's emotional response in a positive way. The surgeon himself must properly prepare the patient for surgery, and any substitution such as a physician's assistant, resident, or nurse should never be assigned. Information regarding surgery, reassurance and emotional support will help modify the patient's feelings. Through an understanding of the surgical process, the patient's change in attitude will be reflected in the post-operative course: Instead of feeling like a powerless victim, she now becomes an important decision-making partner.

The physician who forgets about the patient's family or close friends loses potent allies in the emotional support structure before and after surgery, particularly in cases of hysterectomy where depression is quite often an emotional effect^{1,4,18}. Losing a uterus is more than losing the ability to conceive, as Hamp-

ton and Tarnasky⁹ documented in a study on a group of women who underwent tuboligation compared with a group of hysteromized women.

Moore and Tolley¹² concluded that the majority of first depressions developed prior to the actual hysterectomy and in order to deal with depression effectively, the pelvic surgeon must first recognize this fact. Surgeons should be aware of sexual partner's role in the pre- and posthysterectomy patient's emotions. If the sex partner is distant or detached, or if he sees the patient as less sexually attractive after hysterectomy, she is more likely to become depressed than if he has been emotionally supportive^{5,6,11}. Therefore, consulting not just the patient but the couple is mandatory and essential.

All studies relating to removal of genital organs stress hysterectomy's devastating emotional effect. Fortunately the complex question as to what we as gynecologists can do to improve the patient's emotional life can be answered.

We must first ask why hysterectomies are performed. The most common indication for hysterectomy is fibroma of the uterus⁷. The fibroid uterus as a medical entity is considered benign, with very little tendency to become malignant. As such, the tumor can be removed and the organ preserved by performing myomectomy. Consequently, this established technique and not hysterectomy should be the first procedure of choice. Why is it then that myomectomy is not utilized as often for the fibroid uterus when surgery is indicated? Traditionally the indication for myomectomy is in cases where fibroids are symptomatic (pelvic pain, pelvic pressure and/or abnormal uterine bleeding) and the patient is of reproductive age. It is generally accepted that if the size of the uterus exceeds a twelve week gestational size, this is an indication for hysterectomy. It is believed that this size alone may compress the ureters against the pelvic bone and may cause additional negative complications in kidney function.

With the varied and sophisticated technologies currently in use, (ultrasound, magnetic resonance imaging, laser, operative pelviscopy) advanced surgical techniques and progress in anesthesia, hysterectomy for fibroid uterus should be performed only occasionally and not as routinely as it is today.

When, then, should myomectomy be performed? Should there be any age limit? This author conducted a survey of ten leading medical schools/medical centers in the United States (including Harvard University, Johns Hopkins, Mayo Clinic, and Georgetown University Medical School) regarding an age limit for myomectomy. The answer in general was that none of these medical institutions has established an age limit for myomectomy. The size of the fibroid is the indicator for organ preservation versus hysterectomy. A well-trained physician can remove any size fibroid and preserve the uterus. It is debatable whether or not to utilize Gn-Rh analog for decreasing fibroid size prior to surgery. An analog therapy will diminish the size of a fibroid up to 40% (this author's unpublished clinical observation). Thus, decreasing the size of small fibroids leaves them difficult to detect during surgery; this will then increase the percentage of recurrent fibroid growth after surgery.

In my opinion any size fibroma in the uterus incidentally noticed during laparoscopy or laparotomy must be removed or biopsied and vaporized with a laser or destroyed with electrocautery. Endoscopic myomectomy will become

the procedure of choice in the near future, when adequate training during residency programs and postgraduate training is adopted by teaching institutions. Until this procedure is broadly available, pelvic surgeons will perform hysterectomies because that is what they were taught during specialty training. Those responsible for training are not always willing to accept new technologies and new techniques, because of the burden of retraining. To the best of my knowledge there is no medical school or teaching hospital in the United States that has established a well-designed, advanced videolaparoscopy program as an integral part of a residency program. Postgraduate courses offer video observation type of teaching, or sometimes a session of live observation teaching in the operating room. Preceptorship remains a questionable form of training particularly when the preceptor and trainee hold different state licenses in the United States and obviously one of them cannot perform surgery in a state in which he is not licensed. Only hands-on training is suitable for giving the necessary expertise in videolaparoscopy and only a properly designed residency program should adequately teach organ-preservation surgical techniques.

Is the location of the fibroid contraindicated for myomectomy? I believe it is not. Utilizing the gynecological resectoscope, videolaparoscopic technique gives the surgeon a direct and close view of the surgical field with quite accurate predictability. In the case of proximity of the fibroid to large vessels (i.e., uterine artery), the tourniquet technique can be very useful. Thus, therefore, from almost any location, a uterine fibroid can be safely removed, and the uterus itself preserved.

In this author's opinion, early diagnosis and treatment via laparoscopy should be the first step undertaken, but it will require a well-designed, randomized prospective study. We wait too long for the fibroid to grow, thus necessitating peer acceptance of myomectomy for larger fibroids. Smaller uterine fibroids with a documented tendency to grow will be easy and safe to remove via endoscopy, rather than waiting several years until the fibroid becomes large enough to constitute an indication for hysterectomy because of size, and the patient and her close social circle go through the emotional disturbances associated with hysterectomy or myomectomy via laparotomy. Teaching of the psychological aspect of gynecological surgery ought to be mandatory during residency programs as well as in continuing medical educational courses for gynecologists.

In what respect will gynecological endoscopic surgery positively affect the psychological aspect of gynecological surgery? As mentioned above, there are 15 common emotional responses to surgery. Nine of the fifteen can be minimized when the endoscopic procedure is applied versus the traditional type of surgery by means of laparotomy. The following documented emotional responses can be effectively minimized by the endoscopy approach only:

1. Although *surrender of control* cannot be eliminated completely by endoscopy, it will be minimized greatly when the surgeon explains the surgical process and shortened length of stay in the hospital. Since, in conventional laparotomy, the patient must surrender herself to the physician or physician-consultant(s) and hospital medical personnel in charge, the longer the patient stays in the hospital, the longer she feels controlled and

“surrendered” to medical and hospital personnel. An endoscopy will effectively reduce the hospital stay. Most patients will be discharged on the day of surgery or the next day, in contrast to the same procedure performed by laparotomy, when the average hospitalization in the U.S.A. is four to five days. Therefore, surrender of control that the patient feels is minimized by at least three or four days.

2. *Depersonalization* – The patient with negative emotional feeling about surrender of control must undress, is offered a hospital gown and, in most instances, is accommodated with an unknown roommate whose selection is beyond her control. Unfamiliar and new people such as physician assistants, nurses, assistants to the nurses, and in teaching institutions, students, residents, and technical personnel arrive. Again, endoscopy decreases the patient’s exposure to this unknown; the depersonalization as an emotional feeling will be of shorter duration. An even more positive effect against depersonalization can be experienced by the patient if videolaparoscopy is performed in a free-standing surgical center. In such a center well-trained laparoscopists are able to perform complicated types of surgery with patients returning home on the same day of surgery. It is the author’s experience that even after total videolaparoscopic hysterectomy, the patient may go home on the second post-laparoscopic day (Ostrzeński¹⁵).
3. *Helplessness* – When the surgical treatment is offered, usually associated with hospitalization, the accompanying feeling of helplessness as an emotional response is great prior to surgery. Endoscopy aids in mollifying the patient’s feeling about large incisions associated with laparotomy, by utilizing only a 5–15 mm abdominal incision vs. 10 cm minimal incision for laparotomy. Even when the pelvis mass (fibroid, cyst, endometrioma, ectopic pregnancy, pelvic abscess, etc.) is large, the combination of the patient’s understanding of going home on the same day, along with a very small abdominal incision, tends to diminish the patient’s perception of the pathological process and to minimize feelings of helplessness.
4. *Anxiety* associated with isolation from family and/or friends, being cut, the surgical process, being anesthetized, suffering pain, etc., can be minimized by endoscopic surgery. This procedure will not eliminate anxiety, but will substantially reduce it for the reason aforementioned.
5. *Fear of pain* can be controlled when the patient’s emotional status is adequately prepared before the surgical procedure. The patient’s fear of pain is drastically reduced when an explanation is offered concerning the surgical procedure and laparotomy incisions versus endoscopic abdominal incisions; these issues are seldom or inadequately addressed. The patient can visualize the differences in kinds of procedures to be performed. Operative laparoscopic incisions are less dramatic than skin laparotomy incisions. The patient’s fear of pain dramatically increases with the size of the incision. The smaller the incision, the less the fear of pain. Endoscopy is an extremely useful and effective tool in minimizing this fear of pain.
6. *Fear of loss of identity*. The genital organs are the most important organs in the sexual identity of humans and any surgery, particularly organ removal,

will lead to the fear of losing that identity. Endoscopy as a method of organ preservation, per se, of course can be utilized for organ removal^{15,17}. New endoscopic techniques such as hysteropexy, in cases either where the uterus is prolapsing or where the uterus is malpositioned¹⁶, pelvic herniorrhaphy, and colpopexy¹³ are only a few examples of how endoscopy can cope successfully with organ preservation and as such, will sufficiently minimize the patient's fear of losing her identity. Furthermore, having almost invisible abdominal incisions will very effectively preserve the patient's image of attractiveness, self esteem, and body image.

7. *Emotional lability, sadness, tearfulness, inevitability.* These feelings will be effectively reduced in view of endoscopy, which offers a short stay in the hospital, very small incisions, effectiveness, much faster healing, and a shorter recuperation period than after laparotomy, with none of the morbidity that can be associated with laparotomy. Since the post-surgical recovery time is much shorter, this permits the patient to return to her daily routine within a few days after endoscopic surgery. This is an especially valuable factor in a view of the fact that the female work force has grown considerably in the last decades; women will want to minimize the time taken off for surgery and the recuperation period. Any measure to reduce absenteeism due to surgery and recovery will be viewed positively by the patient and will support the emotional response of the patient.
8. *Regression and dependency.* Post-surgical dependency is directly associated with the pace of recovery; endoscopy substantially minimizes the patient's post-operative dependency. The minimal discomfort of the endoscopic procedure tends to increase the patient's activity and to speed the process of regaining independence.
9. *A feeling of illness* – a state of unhealth – “sick role”. The patient's perception of the ambulatory type of surgery that endoscopy offers results in the perception of as less serious medical problem. If the same surgery were offered via laparotomy, which automatically confines the patient to a hospital bed for several days, it would reflect a more serious medical problem and would put the patient emotionally into the “sick role”. Coming home the same day after endoscopic surgery practically obliterates the patient's feeling of illness. “It must not be so sad with me, if you can do this surgery through a very small hole and I can be home the same day”: this is a quote from one of my patients after the presurgical consultation for salpingo-oophorectomy. Indeed, endoscopic surgery is currently a major achievement which not only corrects physical dysfunction but also minimizes the patient's emotional response to surgery.
10. *Grief.* This feeling with all of its stages (denial, bargaining with God, guilt, depression, anger, resolution-integration) is much less emphasized when endoscopic surgery vs. the laparotomy approach is offered. It is even better if the endoscopic surgeon can prevent removal of the organ. For example, in a case of uterine prolapse, in most instances the surgeon can suspend the healthy uterus and repair the diseased structure, rather than performing a total hysterectomy.

In summary, by performing endoscopy, much of the emotional response to surgery is dramatically reduced. The emotional and physical dysfunction are re-instituted, especially when the irrevocable loss of an organ is eliminated.

The time has come when the indications for organ removal in gynecological surgery should be revised and new criteria established in the case of benign processes. It is only a matter of time before 90–95% of all gynecological surgery will be performed via laparoscopy. Progress is very slow in gynecological surgery and only a few pelvic surgeons are prepared for this advanced endoscopic technique. Since general surgeons have started to perform more and more surgery through endoscopy (cholecystectomy, appendectomy, herniorrhaphy, as well as posterior cul-de-sac of Douglas herniorrhaphy or bladder repair^{14,15}), progress and acceptance by the medical community can provide enormous benefit for the patient.

References

1. Baker, M. G. (1968). Psychiatric illness after hysterectomy. *Brit. Med. J.* **2**, 91–95
2. Barnes, A. B. and Tinkham, C. B. (1978). Surgical Gynecology. In: Notman, M. T., Nadelson, C. C. *The Woman Patient: Medical and Psychological Interfaces*. Plenum Press, New York
3. Benedict, R. (1938). *Psychiatry* **1**, 161
4. Bragg, R. L. (1965). Risk of admission to mental hospital following hysterectomy or cholecystectomy. *Am. J. Public Health* **55**, 1403–1410
5. Dennerstein, L., Wood, C., and Burrows, G. D. (1962). Sexual response following hysterectomy and oophorectomy. *Obstet. Gynecol.* **83**, 401
6. D'Escopo, D. A. (1962). Hysterectomy when the uterus is grossly normal. *Am. J. Obstet. Gynecol.* **88**, 115–122
7. Dicker, R. C., Scally, M. J., Greenspan, J. E. et al. (1982). Hysterectomy among women of reproductive age: Trends in the United States. *JAMA* **248**, 323
8. Freeman, M. G. (1985). Psychological aspect of pelvic surgery. In: Te Linde. *Operative Gynecology*, sixth edition, Lippincott Company, Philadelphia
9. Hampton, P. T. and Tarnasky, W. G. (1974). Hysterectomy and tuboligation: A comparison to the aftermath. *Am. J. Obstet. Gynecol.* **119**, 949–953
10. Massler, D. J. and Devanesan, M. M. (1978). Sexual consequences of gynecological operation. In: Comfort, A. (ed.) *Sexual consequences of this ability*. George F. Stickey, Philadelphia
11. Melody, G. F. (1962). Depressive reactions following hysterectomy. *Am. J. Obstet. Gynecol.* **83**, 410–413
12. Moore, J. T. and Tolley, D. H. (1976). Depression following hysterectomy. *Psychosomat.* **17**, 86–89
13. Ostrzeński, A. (1991). Pelviscopic Colpopexy with CO₂ Laser. *International Society for Gynecologic Endoscopy BiAnnual Meeting*. 10/3–10/5
14. Ostrzeński, A. (1992). Endoscopic pelvic herniorrhaphy with CO₂ Laser. *Gynecological Endoscopy*, 1992, 2 (in printing)
15. Ostrzeński, A. (1992). Endoscopic bladder repair during laparoscopic hysterectomy with vaginal vault suspension. *J. Reprod. Med.* (accepted for publication)
16. Ostrzeński, A. (1991). Endoscopic hysteropexy. *9th Congress of International Society for Laser Surgery and Medicine, Los Angeles, California*, Nov. 2–6, 1991
17. Reich, J., De Caprio, J., and McGlynn, S. (1989). Laparoscopic hysterectomy. *Jnl. Gynecolog. Surgery* **5**, 213
18. Richards, D. H. (1973). Depression after Hysterectomy. *Lancet* **2**, 430–432
19. Wolf, S. P. (1970). Emotional reactions to hysterectomy. *Postgrad. Med.* **47**, 156