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The Society of Laparoscopic Surgeons (SLS) is a non-profit, multidisciplinary and multispecialty educational organization established to provide an open forum for surgeons and other health professionals interested in laparoscopic, endoscopic and minimally invasive surgery.

SLS endeavors to improve patient care and promote the highest standards of practice through education, training, and information distribution. SLS provides a forum for the introduction, discussion and dissemination of new and established ideas, techniques and therapies in minimal access surgery.

A fundamental goal of SLS is ensuring that its members have access to the newest ideas and approaches, as rapidly as possible. SLS makes information available from national and international experts through its publications, videos, conferences, and other electronic media.

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ABOUT THE COVER

Surgeons practice cholecystectomy using Surgical Science’s LapSim® Dissection software and Immersion Medical’s Virtual Laparoscopic Interface. This year the 13th International Congress and Endo Expo 2004 will explore the use of simulators in surgical training. The keynote speech and the future technology session will focus on surgical education, including the role of simulators (page 33).

Postgraduate Course #8, will guide attendees through some of the steps required to set up a skills training program. Both Immersion Medical and Surgical Science along with HAPTICA, METI, The Simulation Group at CIMIT, RealSim Systems LLC, SIMULAB Corporation and Simbionix will be providing simulators for the course. To see if you qualify for free tuition and a $200 stipend, see page 32. Read more about “Surgical Simulation” on page 5.
This century has seen extraordinary changes in the complexity of the technology of the surgical disciplines. Surgeons have undergone a transition from the 3-dimensional (3D) visual and tactile sensation surgical environment to an endoscopic, 2-dimensional (2D) visual image and reduced tactile sensation, operating format. Laparoscopy further challenges the surgeon to accommodate a reduction in depth perception, a 2D image, and a further attenuation of tactile sensation and end force of the instruments that they manipulate. The recent addition of robot-assisted laparoscopy has eliminated the tactile sensation and haptic feedback while providing an excellent 3D image.

These new surgical options have created unique educational challenges. Traditionally, surgeons have trained by didactic and apprenticeship experience. The new minimally invasive surgical techniques require longer learning curves and an opportunity for more repetitive skills practice. The institution of working time directives for physicians in training, financial pressures to increase productivity, and economic restraints on the number of physicians trained by a program have reduced the opportunity to learn surgical skills in the operating room. While pelvic trainers can provide the necessary basic skills training for surgeons, it is usually necessary to incorporate live-animal or cadaveric practice to more fully train in laparoscopy and robot-assisted laparoscopy. However, live-animal surgery requires highly skilled personnel and the increased expense of the animal, provides inexact anatomy compared to that of the human, and then only a one-time experience with the surgical procedure. Cadaveric surgical training incurs greater expense and, while providing true anatomic depiction, may not give as realistic an experience as that of living tissue, and also provides only a one-time surgical experience. All of these training limitations have lead to the development of the concept of surgical simulation.

Surgical simulators may be considered model-based, computer-based, or hybrid. The advances in materials technology have created dramatically realistic model-based simulation of isolated parts of the body and techniques. The procedures commonly taught by these simulators include venous puncture, urinary catheterization, wound closure, and intravenous infusion. These inanimate models are unable to provide feedback or objective measures of performance unless an educator attends the practice session.

Computer-based simulation is more complex but creates realism in the simulator program that is quite amazing. The most sophisticated is virtual reality (VR), which is the collection of technologies that allow people to interact efficiently with 3D computerized data bases in real time, using their natural senses and skills. These simulators provide a convincing representation of the organ or system. Through complex haptic devices they replicate the real clinical experience, requiring both diagnostic and treatment planning by the trainee, while simultaneously providing objective measures of performance and skill.

The hybrid simulators combine the physical models with the computerized simulators. This pro-

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Surgical Simulation

Elspeth M. McDougall, MD
of applying a clip effectively to the tube or “vessel” extruding fluid. Investigators have shown that sur-
grobes-in-training who received VR simulator train-
ing on the Mist-VR showed significantly greater
improvement in performance in the operating
room than those in the control group who did not
receive any simulator training.6,8

The more sophisticated procedural simulator, such
as in the URO Mentor from Simbionix, Inc. for
ureteronephrostomy, combines high-tech man-
nequins with computer-generated programs to cre-
ate an amazingly realistic clinical environment in
which the trainee performs a full complex surgical
procedure.6,7 These simulators provide options in
management and present potential adverse effects
of specific clinical actions to create clinical scenar-
ios that require cognitive and psychomotor interac-
tion by trainees, while creating an objective evalua-
tion of the performance and overall outcome of the
surgeon’s actions. This provides a risk-free environ-
ment for trainees to explore all possible outcomes
of their surgical decisions and actions and parallels
the simulation-based training that has been used
for pilots in the airline industry. It seems intuitive
that repetitive skills training with the exploration of
possible outcomes in a risk-free environment would
maximize the educational experience and reduce the
time of training for surgeons in complex surgical
techniques.

Surgical simulation as a component of the training
of surgeons is a relatively new concept. However,
validation studies of simulators are required to
affirm their appropriateness as testing and certify-
ng modalities. Construct validity is the extent to
which a test discriminates between various levels of
expertise. Construct validity is the ultimate meas-
ure of how meaningful a surgical simulator is in
evaluating an individual surgeon’s skills and must
be able to reliably distinguish the expert surgeon
from the inexperienced surgeon.8,9 Content validity
is the extent to which the domain being measured
is actually measured by the assessment tool. For
example, while trying to assess technical skills,
the testing may actually be directed at evaluating cog-
nitive ability or knowledge. Concurrent validity is
the extent to which the results of the assessment
tool correlate with the gold standard for that
domain. Face validity is the extent to which the
examination resembles a real life situation.
Predictive validity is the measure of the examination
to predict future performance of an individual in
the same task. Reliability is a measure of a test to
generate similar results when applied at 2 different
time points in the same individual. Surgical simu-
lation potentially may provide objective evaluation
of surgical skill that is unbiased and unrelated to
age, sex, or the individual examiner.

Surgical-simulator learning has an enormous
potential to revolutionize the traditional concepts
of skills acquiring education in health care. The
American College of Surgeons is determining the inte-
gration of this learning format in an overall cur-
riculum agenda for the surgical subspecialties. It
may take several years to determine whether there
is a direct relationship between skills learned in a
simulated environment and skills applied in actual
clinical situations and patient outcomes. However,
the concept of repetitive practice in an environ-
ment that provides the opportunity to fail without
real life-threatening consequences suggests an
enhancement of the acquisition of complex surgi-
cal skills and tasks. This is likened to the practice
required to learn to play a complicated musical
instrument or dance routine, or to fly a complex
airplane.

Surgical simulation will not replace the need for
well-designed, comprehensive educational curricu-
a, nor reduce the importance of dedicated and
committed educators. Rather, the simulator will be
a new tool to be integrated into the surgical train-
ing curriculum. The simulator will enhance the
educator’s ability to allow trainees to make and
learn from errors in a nonthreatening fashion with-
out risk to a patient. A concerted and combined
effort by the technology engineers and the clini-
cians will optimize the educational potential of sur-
gical simulation. Surgical education will use simu-
lation within an effective learning environment,
based on a strong foundation of knowledge and
professional attitudes.

References:
1. Kneebone R. Simulation in surgical training:
educational issues and practical implications. Med
future. Virtual reality in surgery. BMJ. 2001;323:912-
915.
3. Hasnon HM, Kumat AN, Ekrohout J Training
simulator for ureteroscopy. Urology. 2004;64:
255-265.
4. Grantcharov PP, Kristiansen VB, Bendix J,
Bardram L, Rosenberg J, Funch-Jensen P. Randomized
clinical trial of virtual reality simulation for
5. Seymour NE, Gallager AG, Roman SA, et al
Virtual reality training improves operating room
performance: results of a randomized. Double-blind
6. Shah J, Daturi A. Virtual reality flexible cysto-
scopy: a validation study. BJU Int. 2002;90:828-
832.
7. Jacolides I, Ogan K. Cadetdu JA, Pearse ME.
Use of a virtual reality simulator for uroscopy
8. Schijven M, Jakimowitz J. Construct validity,
expertise and novices performing on the Xitac
LS500 laparoscopic simulator: Surg Endosc. 2003;17:803-
810.
Hernias in Women: Uncommon or Unrecognized?

Deborah A. Metzger, PhD, MD

CHRONIC PELVIC PAIN

Considering the perceived rarity of hernias in women, the association between chronic pelvic pain and occult hernias is not generally considered when evaluating women with chronic pelvic pain. However, based on a review of the literature and personal experience, nonpalpable, or occult hernias are a common source of chronic pelvic pain in women. Most gynecologists and general surgeons are unaware of occult hernias and many do not believe that they exist; and therefore, they are controversial. However, Nyhus described a spectrum of hernias differentiated by size, presence or absence of a sac, and the degree of deformity of anatomy. Type III hernias are more common in men, whereas Type I and II hernias (occult hernias) appear to be more common in women. Type I and II hernias, often referred to as occult inguinal hernias, have been reported to be associated with groin pain in men, women, and athletes.

Except for a mass in the groin, pain is the most common symptom of a hernia. Pain is more common in the incipient stages of hernia, when the tissues are being stretched, and is by far the most common sole initial symptom caused by hernia. The pain is often sharp and may even be of the neuropathic type. Symptoms may develop long before a palpable hernia develops. Thus, in women with chronic pelvic pain, it would be anticipated that the patient may have been diagnosed with inguinal hernia especially since the patient may see a variety of specialists who may not connect all of the symptoms, such as pain with bowel movements, back pain, increased intraabdominal pressure. Back pain, either uni- or bilateral, appears to be due to psoas muscle spasm as this muscle is often quite tender on examination. Likewise, sciatica may be due to the stretch of the sciatic nerve as it passes over the tensed psoas muscle. The exacerbation of groin pain with menses, which patients describe as different from cramps, is not readily explained, but commonly observed. Ilioinguinal, iliohypogastric, genitofemoral, obturator, and pudendal neuralgia symptoms may predominate, and the patient may complain of sharp, shooting pains up the vagina, around the hip and back, into the flank, down the thighs, and into the labia. These secondary problems make it more difficult to make the diagnosis of inguinal hernia especially since the patient may see a variety of specialists who may not connect all of the symptoms. Thus, the patient may have been diagnosed with lumbar disc problems, pelvic floor tension myalgia, sacroiliac instability, intermittent cystitis, endometriosis, abdominal wall trigger points, neuropathy, pudendal neuralgia, orthopedic problems of the hip, or psychosomatic problems.

Diagnosis of nonpalpable hernias in women relies almost exclusively on clinical examination. The small size of these hernias and the presence of incarcerated fat make it difficult to obtain useful information from ultrasound, computed tomography, magnetic resonance imaging, or herniography. Examination of the abdomen in a supine position with the abdominal wall tensed may reveal tenderness over the course of the ilioinguinal or iliohypogastric nerves, or both. Abdominal examination in a standing position sometimes reveals a subtle bulge associated with the external inguinal canal. More often, however, there may be tenderness of the ring reproducing a component of the patient’s pain. The best predictor of an occult hernia is the vaginal examination. Often the pelvic floor muscles are tense and tender. Likewise, the ischial spines may be tender. Most telling is a reproduction of the patient’s pain by palpation of the internal inguinal area. The positive predictive value of this latter sign approaches 100%.

Oral medications that specifically target nerve pain, such as gabapentin, amitriptyline, and tramadol, are often helpful. Antinflammatory medications, such as ibuprofen, naprosyn, and the cox-2 inhibitors, can be helpful. Narcotic medications in general are not particularly helpful for nerve-related pain. Topical medications, such as lidoderm, 10% ketoprofen, 5% amitriptyline, 5% lidocaine, and/or 10% gabapentin, may reduce pain. Myofascial release performed by a physical therapist trained in internal manual methods can sometimes be helpful in alleviating some of the muscle spasms. Nerve blocks may produce temporary relief, but the pain invariably returns.

Surgery is considered only when a patient has tried the medical treatments described above and still has a level of pain that interferes with her quality of life. Hernias are generally not visible at the time of laparoscopy and thus are usually missed by prior surgeons. To make the diagnosis, inguinal exploration of the affected side(s) is performed using a laparoscopic approach. A transverse incision is made in the pterion, and a careful exploration is performed to look for incarcerated fat or dilation of the indirect inguinal, direct inguinal, femoral, and obturator spaces. All 4 spaces are explored because it is common to find more than one type of hernia. The incarcerated fat is removed, and a soft laparoscopic approach. A transverse incision is made in the pterion, and a careful exploration is performed to look for incarcerated fat or dilation of the indirect inguinal, direct inguinal, femoral, and obturator spaces. All 4 spaces are explored because it is common to find more than one type of hernia.
mesh is placed over the hernias. We do not use staples or tacks to hold the mesh in place because these fixation devices can cause pain and require additional surgery to remove them. The peritoneum is then closed with an absorbable suture.

As with any type of laparoscopic surgery, risks are associated with hernia repair. Bleeding from vessels in the inguinal area, permanent damage to nerves, infection, adhesions, and continued pain are all potential risks. Postoperative pain is somewhat greater than with other types of laparoscopic procedures and should be treated with appropriate narcotics. Neutropenia may initially resolve and then reappear within 1 to 3 weeks following surgery and last 2 to 3 weeks before it spontaneously resolves. Some women require a series of nerve blocks to completely resolve the nerve pain. Overall, 80% to 85% of women obtain complete or significant pain relief from surgery for occult hernias.

The treatment of chronic pelvic pain has been limited by our ability to specifically diagnose and treat the cause(s) of pain. Because occult hernias are not generally apparent on laparoscopic evaluation, they should be considered in chronic pelvic pain patients with negative laparoscopy results or where the observed pathology is insufficient to explain the degree and type of pain.

 Arial 10 pt

 References:

 LAPAROSCOPIC ADHESIOLYSIS

 When to Operate on Patients With Adhesions as a Cause of Pain

 Jay A. Redan, MD

 Determining the cause of abdominal and pelvic pain can be very difficult. Often the workup for abdominal pain, including endoscopy, radiologic tests, and physical examination, yields negative or inconclusive results, leaving the physician and patient with no diagnosis and a treatment consisting only of pain control.

 Through the work of Harold Ellis, we know that over 90% of patients who undergo open abdominal surgery develop adhesions.1,2 We also know from the recent Surgical and Clinical Adhesions Research (SCAR) Study in Scotland3 that of the patients who underwent an open abdominal hysterectomy during their lifetime, 50% developed an adhesion-related complication requiring hospitalization. It is from studies such as these that we know adhesions are a very common cause of abdominal pathology and chronic pain.

 The use of laparoscopy with photography and pathologic examination can often show the cause of the patient’s pain, and treatment can be performed then and there laparoscopically. Recently, many articles4-7 have appeared in the literature showing the utility of laparoscopy for such a purpose. Additionally, a laparoscopy that is negative for pathologic findings can also prompt the primary care physician to explore other disciplines for treatment of patients with subjective chronic abdominal pain, sometimes psychological counseling being the treatment of choice.

 LAPAROSCOPY AND SLS REPORT

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 11
Adhesions are classified as abdominal wall, intermesent, and pelvic. Abdominal wall adhesions certainly cause pulling and niggling sensations due to the peritoneal peritoneal irritation. Most patients who have these adhesions lyzed have immediate relief of their pain and almost certainly remain pain free unless these adhesions return. Interloop adhesions tend to cause more partial obstructive symptoms due to the kinking and twisting of the bowel.

Pelvic adhesions are most common in females and are correlated with dyspareunia and chronic pelvic pain in the posthysterectomy patient. Should there be adhesions to the adnexal structures or vaginal cuff, evaluation for endometriosis and ovarian remnants is most important. The relationship of constipation and adhesions has long been debated. Many patients have a pseudo obstruction type or motility disorder. Most are female status posthysterectomy. Many have endometriosis relating to either an “N” or a “W” shaped rectum. Subjectively, it is a common compliant among those with adhesion-related disease. Objectively, however, more study is required to definitively show that adhesions cause constipation.9,10

Many patients who undergo a laparoscopy for abdominal pain, in the face of a workup with negative results, have a placebo effect for relief of their pain. This was emphasized in a current study by Swank et al11,12 in which 50% of their patients who underwent a laparoscopy for pain in the control group had relief of their pain although they had undergone a procedure with no adhesiolysis. Additionally, patients who undergo a successful adhesiolysis may still have chronic pain; a neurological cause may be responsible for the patient’s continued pain, which may need to be addressed in conjunction with adhesiolysis.13

Next, the area that certainly causes most questions among patients is “how long will the adhesions remain asymptomatic?” We do know that 90% of people who undergo an open procedure will have their adhesions return as documented by Harold Ellis.1 However, the recurrence rate of laparoscopic lysis of adhesions has not yet been widely established. Drs Swank,11,12 Reisch,14,15 and Khaitain16 have consistently reported that an average of 79% of their patients have a cure of their pain after a laparoscopic adhesiolysis.

Many formulations for adhesion prevention are commercially available and in trial for either intestinal adhesions or gynecologic/infertility adhesions. The caveat, however promising, is that results of trials for these products have a wide standard deviation in success and have not been consistently reproducible.17-21

To provide adequate evidence-based medicine, the question of how to design a study to assess the efficacy of laparoscopic adhesiolysis for pain is quite difficult. To match patients in a prospective manner minimizing the variables from patient to patient while maintaining the same level of skill by the surgical operator and the ability to randomize the patients into either a controlled/no treatment group versus a “standardized” laparoscopic lysis of adhesions is virtually impossible. And finally, if not most importantly, to operate on a patient with pain and visible adhesions and to not perform an adhesiolysis because they have been randomized into this group would be at the least questionably unethical if not legally challengeable. Therefore, a prospective study, while valuable, is not feasible; we are forced to rely on retrospective data as our “standard” of care. Unfortunately, this adds an additional skewed variable in any summary of studies that are performed on this topic.

Finally, for any surgeon or gynecologist who has a patient with chronic abdominal pain, chronic pelvic pain, or both, where an adhesion related disorder is suspected, we ask that you keep in mind this minimally invasive diagnostic and most therapeutic tool as an option to offer these patients.
LAPAROSCOPY AND SLS REPORT

cussion and summary. Eur J Surg. 1997;77:
56-62.
2. Ellis H. Medico-legal consequences of postopera-
2001;94:331-332.
3. Lower AM, Hawthorn RJ, Ellis H, et al. The
impact of adhesions on hospital readmissions
over 10 years after 1984 open gynaecological op-
erations: an assessment from the Surgical and
Clinical Adhesions Research Study. BJOG. 2000;107(7):
855-862.
4. Onders RP, Mittenen E, Utility of laparoscopy in
549-552.
5. Reissman T, Spera RM. Laparoscopy for adhe-
Laparoscopic adhesiolysis and relief of chronic
7. Catter JE. Surgical treatment for chronic pelvic
8. Demco LA. Effect on negative laparoscopy rate
in chronic pelvic pain patients using patient assisted
Laparoscopic resection of deep pelvic endometriosis
10. Perry CP. Relationship of gynecologic surgery to
treatment of cul-de-sac obliteration secondary to
ovarian-uterine adhesions. Hum Reprod.
2001;16(12):2728-2732.
11. Swank DJ, Bonjer HJ, Jeekel J. Safe laparoscopic
adhesiolysis with optical trocar: an evaluation in
100 different surgical procedures. J Reprod Med.
12. Swank DJ, Van Erp WE, Repelaer Van Driel OJ,
et al. A prospective analysis of predictive factors on
the results of laparoscopic adhesiolysis in patients
with chronic pelvic pain. Surg Laparosc Endosc.
13. Holden JE, Pizzi JA. The challenge of chronic
urinary incontinence and postsurgical failure.
14. Reich HR, Roberts LM, Redan JA. Laparoscopic
Improved Cost-effectiveness in Laparoscopic Hysterectomy.
With Cheap, Old-fashioned, Surgical Techniques for
Replacing of Expensive, Disposable Instruments.
New York: The Parthenon Publishing Group; 2002:
127-136.
15. Reich HR, Salemi F, Salam J. Laparoscopic
treatment of dilated-dilated obstructions secondary
to retrocervical deep fibrotic endometriosis. J Reprod Med.
after laparoscopic lysis of adhesions and placement
17. Swank DJ, Boenig HJ, Jedel J. Safe laparoscopic
adhesiolysis with optical trocar and ultrasonic
2002;16(12):1796-1801.
Impact of laparoscopic surgery in the treatment of
chronic abdominal pain syndrome. Chir Ital.
19. Fernandez R, Malani D, Campbell PE. Evaluation
of a sprayable polypolyethylene glycol adhesion barrier in
a porcine efficacy model. Hum Reprod.
2001;16(12):2728-2732.
Prospective clinical trial of spray gel as a barri-
er to adhesion formation. An interim analysis. J Am

JOURNAL WATCH: JLS

Evaluation of Specialized Laparoscopic Suturing
suturing and tying constitute advanced minimal-
ally invasive surgery skills. Specialized devices
have the potential to allow even inexperienced surgeons to master these techniques with min-
imal instruction.

METHODS

We studied 51 consecutive cases of the laparo-
sopic Burch procedure performed from January 1, 1998 through February 28, 1999. We also studied 91
consecutive cases of the TVT procedure in
women, aged 34 to 79, during the 12 months
between April 1, 1999 and March 31, 2000. These
women had documented urinary stress inconti-
ence and underwent a TVT, either as a separate
procedure (44 patients) or combined with another
procedure (47 patients).

In the laparoscopic Burch group, 17 patients had
the Burch procedure only, and 34 patients had
combined procedures. In the TVT group, 41
patients underwent TVT only, and 47 patients had
combined procedures.

All patients had a proper preoperative history
taken, physical examination performed, as well as
laboratory testing. Cystometric and urodynamic
procedures were performed in all of these patients
to detect detrusor instability and intrinsic sphinc-
ter deficiency. Only patients with urodynamic
stress incontinence were included in the Burch
group. These patients were further divided into 5
groups based on their body mass index. In the
Burch group, about 69% of these patients were
considered normal or overweight, only 33% of the
patients were considered obese. The Obesity I
group included 28% of the patients, Obesity II
group included 9%, and the Obesity III group had
no patients. However, in the TVT group, 33% of

LAPAROSCOPIC BURCH vs. TENSION-FREE VAGINAL TAPE

Treatment of Stress Urinary Incontinence in Obese Patients

Maurice K. Chung, RPh, MD

U rinary incontinence affects more than 25 mil-
lion American women.1 Currently, more than 100
different surgical procedures are available for
treatment of this disorder. The 2 most common
procedures are the pubovaginal sling and retropu-
ervaginal procedures, such as the Marshall-
Marchetti-Krantz (MMK) cystourethropathy and
the Burch procedure. These techniques have a suc-
cess rate of over 80%, whether they are open or
laparoscopic.2-4 Obesity increases not only the
operative complications but also the postoperative
failure rate. Numerous articles5-10 have been pub-
lished in regard to obesity as both a cause of stress
urinary incontinence and postsurgical failure.

Recently, a surge in mid urethral sling procedures,
such as the Span, Monarc, Mentor OB tape, and
intervaginal slinglasy (IVS) procedure, have been
developed to treat this condition, but no long-term
follow-up studies have been conducted, and the
tape material used has been different. The trans-
vascular tension-free (TVT) procedure has been per-
formed for about 6 years in North America, and
longer than that in Europe. It is a minimally inva-
sive mid urethral sling procedure for treating uro-
dynamic stress urinary incontinence with a success
rate averaging over 80%.11-20 Currently, little long-
term data exist concerning the procedure in obese
women.21-31 We studied the effectiveness and com-
lications of the laparoscopic Burch and TVT pro-
cedures in the obese female in a private Midwest
community hospital setting.

JOURNAL WATCH: J Am Coll Surg

Interpreting Statistics in Medical Literature: A Vade
Mecum for Surgeons • Guller U, DeLong ER. 2003;98:
491-498. The vast amount of data that supports the
conclusions of research could not yield clear results
without statistics. Coveting everything from means and medians to survival curves, Guller and DeLong provide
clear explanations and realistic examples of statistics as
most often used in medicine.

JOURNAL WATCH: JLS

Replacement of Expensive, Disposable Instruments
With Cheap, Old-fashioned, Surgical Techniques for
Improved Cost-effectiveness in Laparoscopic Hysterectomy
• Marlborough JE, Jacobs VR. 2002;8:201-206. The
classical intravesical supracervical laparoscopic
hysterectomy procedure can be made more cost-
effective by substituting expensive disposable devices
with classic conservative surgical techniques.

LAPAROSCOPY AND SLS REPORT
patients were normal or overweight. Of the patients, 66% were considered obese and 43% were classified as having Obesity II-III.

ANESTHESIA

In the Burch group, all patients required general anesthesia. Whereas, in the TVT group the surgeries were performed with the patient under either general anesthesia, spinal anesthesia, epidural anesthesia, or local anesthesia with IV sedation. In all cases, a local anesthetic mixture of 30 cc Lidocaine 1% with epinephrine (1 to 100 000 dilution), 30 cc of Marcaine 1/2% with epinephrine (1 to 100 000 dilution), and 60 cc of saline were used to form a 1/4% dilution of the anesthetic solution. This was used for hydrodistention, hemostasis, and postoperative analgesia.

OPERATION

All Burch procedures were performed with the laparoscopic intraperitoneal approach, as this enabled us to evaluate the peritoneal cavity and treat all possible pelvic organ defects. In general, it required over 1 hour of operative time and was performed the same way as the classical Burch colposuspension. We utilized nonabsorbable O Gore-Tex, Prolene, or Ethibond sutures. We sutured the lateral peritoneal attachments first to form a 1/4% dilution of the anesthetic solution. The length of stay was less than 1 day. Fifty percent of patients were discharged without an indwelling urinary catheter. Although the majority of patients required general anesthesia, a longer operative time, and was favorable when compared with that of TVT. However, with the test of time, the effectiveness in controlling urodynamic stress incontinence decreased and only 76.9% of the Burch group remained dry. At 48- to 60-month follow-up, in the TVT group, 90% were completely dry. This study demonstrates that the TVT procedure can stand the test of time, and its effectiveness over time will remain excellent.

CONCLUSION

Laparoscopic Burch colposuspension is an excellent minimally invasive procedure. It allows us to treat genuine stress urinary incontinence with a very good success rate. In addition, it allows us to correct the coexisting pelvic organ relaxation and treat existing pelvic disease. We performed over 130 laparoscopic Burch procedures before the availability of the new TVT technology. We chose the most recent 51 cases because of the availability of office cystometric/urodynamic testing and standardization.

REFERENCES

MINIMALLY INVASIVE OPEN REPAIRS

Groin Hernia Surgery in Evolution

Phillip P. Shadduck, MD

INTRODUCTION
Groin hernias and their treatment remain a significant healthcare problem. They occur with an incidence of 1 in 350 to 300 men/year and have a lifetime prevalence in men of 6% to 27%^1,4 Approximately 800,000 inguinal/femoral hernia repairs are performed annually in the United States.4 The socioeconomic impact of groin hernias on the US healthcare system is estimated to be several billion dollars annually. As one of the most frequently performed operations in general surgery...even minor alterations in outcome and resource use have appreciable impact.5 Fortunantly, during the last 15 years, tremendous progress has been realized in herniorrhaphy techniques and outcomes. This article will review the historical background and summarize the latest techniques in this ongoing evolution.

EVALUATION OF TECHNIQUES
Bassini made the critical observation that the successful treatment of hernias depends not on manipulation of the hernia sac but rather on repair of the underlying defect. Prior to Bassini’s observation in the 1880s, recurrence rates were essentially 100%. The repairs developed by Bassini, Halsted, and McVay addressed the myofascial defect and thereby reduced recurrence rates to 10% to 15%. These sutured repairs remained the mainstays of Shouldice’s multilayer repair reduced recurrence rates even further, to approximately 1% to 2%, and gained popularity by the 1980s. However, all of these sutured repairs resulted in tissue tension, postoperative pain, and temporary disability. Mesh techniques were developed to reduce tension, post-operative pain, disability, and recurrence rates. Though several mesh techniques were described through the mid to late 1900s (Chatule, Nyhus, Condon, Stoppa, Rives, Wantz, and others), widespread acceptance of mesh repairs was not achieved until Lichtenstein’s “tension-free hernioplasty” in 1989. With the acceptance of open mesh repairs, and the laparoscopic cholecystectomy revolution at that same time, laparoscopic mesh repairs followed. By the early 1990s, the transabdominal preperitoneal placement (TAPP) and totally extraperitoneal placement (TEP) of mesh were being touted as minimally invasive techniques. Through the TAPP/TEP repairs did have the advantages of minimal pain and rapid postoperative recovery, they had the disadvantages of longer learning curves, higher operative costs, and rare but serious complications. Over the last decade, several investigators have endeavored to develop techniques that combine the best of both worlds—achieving the advantages of open mesh repairs (simplicity, safety, low recurrence, low cost) and of laparoscopic repairs (minimal pain and rapid recovery). Thus were born the “minimally invasive open repairs.”

THE “MINIMALLY INVASIVE OPEN REPAIRS”
The author considers the following to be “minimally invasive open repairs”: (1) the plug and patch repair (Rutkow, 1993); (2) the Prolene Hernia System (PHS) repair (Gilbert, 1990); and (3) the Kugel repair (Kugel, 1999). Taken together, these 3 new techniques already account for about 40% of hernia repairs performed in the
The Kugel repair.9 The Kugel Hernia Laparoscopy and SLS report

A literature search of all published results for these minimally invasive, open repairs reveals about 20 randomized clinical trials (RCT) and prospective studies.20-30 Most of these studies address the Rutkow plug and patch technique;20-24 few published RCT and prospective studies exist for the Kugel and PHS repairs.25-27,29 The available results from these publications are summarized and presented, in simplified form, alongside outcomes for more established mesh repairs (Lichtenstein and laparoscopic TAPP/TEP) (Table 1). Data from nonmesh, sutured repairs are not presented here. The interested reader is referred to the Cochrane metaanalysis for data demonstrating that open mesh techniques have fewer recurrences, allow quicker return to work, and cause less persistent ambulatory setting, with the patient under local or regional anesthesia, with operative times of about 30 minutes, minimal postoperative pain, and rapid recovery with little or no work restrictions. What are the results of these new techniques, and how do the results compare with those of other more established techniques?

RESULTS

In the last 2 decades, hernia repair techniques have undergone an evolution, almost revolution. United States (plug and patch >30%, Kugel 8% to 9%, PHS 1% to 2%). They approximate the Lichtenstein tension-free hernioplasty (approximately 40%) and exceed the laparoscopic repairs (approximately 10% to 15%) and sutured repairs (<10%) (Figure 1).
pain than do nonmesh, sutured repairs. Each of the 5 mesh repairs presented in the table has advantages and disadvantages. The differences among the mesh techniques are, in many parameters, subtle. Based on available data, it appears that the minimally invasive open techniques have comparable periprocedural and short-term results when compared with those of more established techniques and therefore merit additional study, particularly in randomized trials and prospective registries.

CONCLUSION

Grom hernias remain a significant healthcare problem. Herniorrhaphy is one of the most frequently performed general surgery operations. The cost of hernia treatment runs into the billions of dollars annually. In last the 2 decades, hernia repair techniques have undergone an evolution, almost revaluation. The minimally invasive open repairs are the newest entries in this ongoing process. Though most would probably agree that we have not yet achieved an ideal hernia repair, it appears that we may be closer now than ever before.

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References

14. Murphy JW. A multicenter, 5-year safety data registry of the Prolene (polypropylene) hernia system (PHS)—an interim report. 5th annual meeting of the American Hernia Society, May 8-12, 2002, Tucson, AZ.
Aims by ACMI enables efficient capture, storage, and management of surgical/ laparoscopic still images and streaming video. The advanced graphical user interface facilitates fast and intuitive staff interaction. In 1 minute, still images and streaming video are stored onto either a CD or DVD. Contact ACMI Corporation, www.ACMICorp.com

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Valleylab introduces the Ligature V 5 mm laparoscopic sealing/divider. As part of the revolution- ary Ligasure™ system, this multi-functional instrument seals and cuts vessels up to and including 7 mm in diameter. Small jaws and fine tips provide access in confined spaces, and handswitching activation eliminates the need for a footswitch. Contact Valleylab, www.Valleylab.com

The new Harmonic Scalpel UltrasoundVision Long Shears, with a full 45 cm of length for improved access, can eliminate the need to change ports to reach the operating site, making laparoscopic surgery an option for morbidly obese patients, resulting in shorter recovery time, and cuts, coagulates, grasps and dissects to improve overall proce- dural efficiency. Contact Ethicon Endo-Surgery, 800 USE ENDO, www.EthiconEndo.com

The new Harmonic Scalpel UltrasoundVision Hand Control feature offers push buttons integrated into the instrument, allowing surgeons to keep their eyes on the surgical field and/or monitor for uninterrupted focus, have complete control over power settings conveniently at their fingertips, and eliminate the Harmonic Scalpel Foot Switch, lessening cords and clutter. This feature may increase proce- dural efficiency and improve surgical flow, allow surgery to be performed with less staff, and improve patient care. The ergonomic shaped sheaths and electro- wave XP is a completely self-con- tained, battery-operated disposable fluid pump. Contact ACMI Corporation, www.ACMICorp.com

The ACMI Tripolar Ultra Cutting Forceps combine surgical efficiency, the safety of bipolar electrosurgery, and cost effectiveness in a single, multifunctional instrument. Trippolar Ultra Cutting Forceps’ internal spring-controlled pressure ensures consistent grounding strength and reduces hand fatigue. The Trippolar Ultra provides atraumatic grounding, dissection, coagulation, retraction, and transaction in one instrument. Contact ACMI Corporation, www.ACMICorp.com

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Preliminary Program Agenda
TUESDAY, SEPTEMBER 28, 2004
7:00 am – 9:00 pm Postgraduate Course Registration
WEDNESDAY, SEPTEMBER 29, 2004 • The Congress Postgraduate Courses (see next page for details)
7:00 am – 9:00 am Postgraduate Course Registration and Complimentary Continental Breakfast (PG Course Attendees)
12:00 pm – 6:00 pm CONGRESS REGISTRATION OPEN
5:00 pm – 6:30 pm OPENING CEREMONY, Presidential Address, Honorary Chair Presentations
6:30 pm – 8:30 pm Welcome Reception in Exhibit Hall
THURSDAY, SEPTEMBER 30, 2004 • Day 1 International Congress and Endo Expo 2004
6:45 am – 7:00 am General Session: Best of Laparoscopy Updates
Key laparoscopy updates presented by SLS Special Interest Group (SIG) Committee members highlighting the newest developments and future expectations of surgical and diagnostic procedures.
8:30 am – 10:00 am MULTIDISCIPLINARY PLENARY SESSION: (Gynecology, General Surgery, Urology)
System Approach for Detection and Reduction of Errors
10:00 am – 10:30 am Refreshment Break/Visit Exhibits
10:30 am – 12:30 pm MULTIDISCIPLINARY PLENARY SESSION: (Gynecology, General Surgery, Urology)
Accommodating the New Malpractice Environment
Director: Camran Nezhat, MD, Co-Director: William E. Kelley, Jr, MD
12:30 pm – 1:45 pm Complimentary Lunch Available in Exhibit Halls
1:00 pm – 1:30 pm POSTER PRESENTATIONS
Director: Raymond L. Lanzaforme, MD, MBA, Douglas E. Ott, MD, MBA
1:45 pm – 5:00 pm CONCURRENT SESSIONS: Over 200 Scientific Papers, Open Forum Presentations, and Videos will be presented by SLS members and colleagues from around the world. Laparoscopy Updates: Current status, newest developments, and future expectations of surgical and diagnostic procedures.
2:00 pm – 4:00 pm Complimentary Refreshments Available in the Exhibit Hall
THURSDAY, SEPTEMBER 30, 2004 • Day 1 International Congress and Endo Expo 2004
5:00 pm Adjourn for the day
FRIDAY, OCTOBER 1, 2004 • Day 2 International Congress and Endo Expo 2004
7:00 am Congress Registration/Complimentary Continental Breakfast in Exhibit Halls
7:30 am – 8:30 am AWARD WINNING SCIENTIFIC PAPERS AND VIDEOS PRESENTATIONS
Director: Elspeth M. McDougall, MD, Co-Director: Paul Alan Wetter, MD
8:30 am – 11:30 am LIVE TELESURGERY from Raymond Sloan, Jr, MD, New York
10:00 am – 10:30 am Refreshment Break/Visit Exhibits
11:30 am – 12:30 pm Complimentary Lunch Available in Exhibit Halls
12:00 pm – 12:30 pm New Product Presentations by Exhibitors
Session Director: Harithi Hasan, MD, Co-Director: Francis J. Rudnicki, MD
12:30 pm – 1:45 pm BEST POSTER AND RESIDENT AWARD-WINNING PAPER PRESENTATIONS
Featured Speaker: Recipient of the $1,000 Award for Best Paper by a Resident
12:45 pm – 1:45 pm EXCEL AWARD LECTURE AND PRESENTATION
Recipient: Paul Alan Wetter, MD, Chairman, The Society of Laparoendoscopic Surgeons
1:45 pm – 5:00 pm CONCURRENT SESSIONS: Over 200 Scientific Papers, Open Forum Presentations, and Videos will be presented by SLS members and colleagues from around the world. Laparoscopy Updates: Current status, newest developments, and future expectations of surgical and diagnostic procedures.
2:00 pm – 4:00 pm Complimentary Refreshments Available in Exhibit Hall
5:00 pm Adjourn for the day
SATURDAY, OCTOBER 2, 2004 • Day 3 International Congress and Endo Expo 2004
7:00 am Congress Registration
7:30 am – 9:00 am BREAKFAST WITH KEYNOTE SPEAKER (Ticket required)
Keynote Speaker: Richard H. Bell, Jr, MD, The American Board of Surgery
9:00 am – 10:30 am FUTURE TECHNOLOGY SESSION: Surgical Education: Beyond Simple Teaching
10:30 am CLOSING CEREMONY Passing of the Presidential Gavel
10:30 am – 1:30 pm International Congress is adjourned
10:45 am – 11:15 am SD Business Meeting – All SLS Members are encouraged to Attend.
Faculty, Program, and Topics subject to change.
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Pre-Conference Postgraduate Courses

Wednesday, September 29, 2004

**HALF-DAY COURSES (2 AMA PRA Category 1 Credits)**

**9:00 am – 12:00 pm; 1:00 pm – 4:30 pm**

**FULL-DAY COURSES (6 AMA PRA Category 1 Credits)**

**9:00 am – 4:30 pm**

**PREVENTION AND MANAGEMENT OF LAPAROSCOPIC AND ENDOSCOPIC SURGICAL COMPLICATIONS**

**Course Director**

Raymond J. Lanzafame, MD, MBA

**Co-Directors**

Carl J. Levinson, MD

Raymond J. Lanzafame, MD, MBA

**FACULTY**

Henry Anich, MD, Course Director

Michael P. Diamond, MD, Co-Director

Stephan M. Kavic, MD

J. Barry McKeeman, MD, PhD

Dennis E. O’R, MD, MBA

Jay A. Redan, MD

**HALF-DAY (9:00 am – 12:00 pm)**

**POSTGRADUATE #1A**

**ABDOMINAL/PELVIC ACUTE/CHRONIC PAIN**

Who’s Going to Be Called?

At the completion of this course the participants should:

Understand and be able to apply techniques for differentiating between causes of acute and chronic pain – gynecologic versus general surgical; Understand and be able to apply techniques for performing a comprehensive history and physical examination for patients with acute and chronic pain; Understand and be able to apply techniques for differentiating abscess from non-abscess; Understand the role of myofascial trigger points in both pelvic and abdominal pain; Appreciate the role of interstitial cystitis, endometriosis and adhesions in acute and chronic pain; Learn how to perform a comprehensive diagnostic and therapeutic laparoscopic exam of the entire peritoneal cavity.

**FACULTY**

James E. Carter, MD, PhD, Course Director

Jay A. Redan, MD, Co-Director

Oscar D. Almeida, Jr, MD

Michael S. Kavic, MD

C. Paul Perry, MD

**HALF-DAY (1:00 pm – 4:30 pm)**

**POSTGRADUATE #3B**

**HYSTEROPLasty AND HYSTEROscopic SURGERY**

Updates on Uterine Ablation and Surgical Approaches

Participants will be able to:

Review the modern approach to office hysterectomy for diagnosis and treatment; Understand the role of hysterectomy and sonohysterography in the evaluation of abnormal uterine bleeding; Review the most recent and results of the treatment of uterine myomas; Understand the logic and true role of endometrial ablation in the treatment of refractory dysfunctional uterine bleeding; Update their knowledge of laparoscopic tubal sterilization with the Essure microinserts; Be aware of how to prevent, recognize and manage complications when they occur; Interact with the faculty in the best and most efficient way of performing hysterectomy in the office and in the operating room.

**FACULTY**

Charles H. Koh, MD, Course Director

Richard M. Satava, MD, Co-Director

Lawrence C. Baker, MD

Morris E. Franklin, Jr, MD

Keith B. Isaacson, MD

Fair Nezhat, MD

Howard N. Winstead, MD

**FULL-DAY (9:00 am – 4:30 pm)**

**POSTGRADUATE #4**

**PART A: DIAGNOSIS AND TREATMENT OF GERD: Surgical Approaches**

**PART B: LAPAROSCOPIC CHOLECYSTECTOMY AND COMMON BILE DUCT MANAGEMENT**

The 21st Century: Participants will increase their knowledge of various aspects of gastroesophageal reflux disease, including GERD: Preoperative assessment, indications and techniques; Complications and special situations; Alternates techniques in laparoscopic cholecystectomy.

**FACULTY**

Alan P. White, MD, Course Director

W. Peter Geis, MD, Co-Director

Stephen R. Freeman, MD

J. Barry McKeeman, MD, PhD

John T. Moore, MD

**FULL-DAY (9:00 am – 4:30 pm)**

**POSTGRADUATE #5**

**Masters Class in Laparoscopic General Surgery**

**FULL-DAY (9:00 am – 4:30 pm)**

**POSTGRADUATE #6**

**MASTERS CLASS IN LAPAROSCOPIC COLON RESECTION**

**FULL-DAY (9:00 am – 4:30 pm)**

**POSTGRADUATE #7**

**MINIMALLY INVASIVE BARIATRIC SURGERY**

**Course Objectives:** Acknowledge the worldwide epidemic rise of obesity as a major health concern. Discuss the elements necessary for the initiation and maintenance of a comprehensive bariatric surgery program. Distinguish the appropriate pre- and post-operative care of the bariatric patient; List the advantages, disadvantages and outcomes of different laparoscopic solutions to morbid obesity. Discuss the prevention and management of common complications of laparoscopic weight loss surgery; Discuss effective strategies for achieving optimal reimbursement; Identify common malpractice pitfalls; Gain cognizance of the current status and future trends of research in bariatry.

**FACULTY**

Philip R. Schauer, MD, Course Director

Samer Mattar, MD, Co-Director

Maria Terry, MD

**FULL-DAY (9:00 am – 4:30 pm)**

**POSTGRADUATE #8**

**THE ROLE OF SIMULATION**

**Course Objectives:** Be able to identify educational and future directions in simulation in surgical education and practice. Have the latest information about how to set up a laparoscopic training program in general surgery, gynecology, and urology. Become exposed to an exchange of information from other specialties. Assess the feasibility of setting up a multidisciplinary skill training course or center. Understand current assessment metrics and validation methods of laparoscopic simulators; Become familiar with various simulators and their capabilities. Experience hands-on practice with current validated simulators; Evaluate the role of various simulators in their training or future skill training programs. Supported in part by an educational grant from the Defense Advanced Research Projects Agency (DARPA).

**FACULTY**

Harith Hasson, MD, Course Director

Richard M. Satava, MD, Co-Director

Gerhard F. Buess, Prof Dr Med

Farr Nezhat, MD

Liselotte Mettler, Prof Dr Med

Larry C. Biskin, MD

Jim W. Ross, MD, PhD

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Congress Information

Congress Educational Methods and Objectives

The 13th International Congress and Endo Expo employs a variety of educational formats including topical general sessions, the presentation of scientific papers, open forums, posters, and original videos offered in small specialty specific breakout sessions, and informal gatherings of participants and expert faculty. The increasing complexity of minimally invasive diagnostics and therapy requires a continuous educational process. The exchange of knowledge and expertise among the participants taking part in this congress contributes to the continuation of excellence in minimally invasive surgery.

Upon completion of the congress participants will be able to:

- Increase comprehension of the basic and fundamental principles of laparoscopic, endoscopic, and minimally invasive techniques, enhancing the participants' understanding of these techniques;
- Understand the recent advances in laparoscopic, endoscopic, and minimally invasive techniques;
- Determine the appropriate use of laparoscopic, endoscopic and minimally invasive equipment as part of a treatment plan in the care of patients;
- Comprehend the developing technologies that will be available in the future to enhance the standard of patient care; and
- Acquire educational information within the physicians' specialty, which will enhance their professional development and patient care.

MultiSpecialty Plenary Session

Thursday, September 30
8:30 – 10:00 am
System Approach for Detection and Reduction of Errors

Surgeons and aviation pilots are essentially fault-tolerant humans operating in a vulnerable environment. However, while the aviation industry has been able to reduce mishaps through the use of flight simulation and application of safety system methods such as root cause analysis, the medical-surgical establishment has yet to follow such a path. This plenary session will address the issue of surgical error detection and management using a system approach employing engineering tools, assessment metrics, software, and simulation technologies.

FACULTY AND PRESENTATIONS

Richard M. Satava, MD, Session Director
Error Detection and Management:
A Perspective

Harish Hasson, MD, Co-Director
Defining a Vocabulary of Laparoscopic Skills

James D. Bauer, MD
IDFCO Functional Model
Expression of Errors

Blaine Hannaford, PhD
Merck's Model Expression of Errors

Mika Naidal Srinivas, MD
The Role of Objective Assessment and Error Measurement in Curriculum Development

MultiSpecialty Plenary Session

Saturday, October 2, 2004
7:30 am – 10:30 am
3:00 am Breakfast
8:00 am Keynote Lecture
9:00 am Future Technology Session
Richard H. Bell, Jr, MD, Keynote Speaker
Chao, Education and Training Committee

The American Board of Surgery
“Surgical Education and Training: Aligning Simulation Capabilities to Future Needs of Certification by the American Board of Surgery.”

The last day of the congress offers you an opportunity to start the day with colleagues and accompanying guests at the seated breakfast, Keynote Speaker’s Presentation, and Future Technology Session.

The Future Technology Session, “Surgical Education: Beyond Simple Training” immediately follows the breakfast. Not since the time of William Halsted has there been such a disruptive change in surgical education, and with this change comes the opportunity to totally revolutionize the training of a surgeon. Forever gone is the era of 120 hour work week, subjective assessment by your mentor who holds life and death sway over your career, and the all-too-frequent learning by the “see one, do one, teach one” paradigm, all the while not actually certain whether you are really doing it right. No longer is it acceptable for you to obtain your license forever, or not know whether the new procedure you learned last weekend in a company-sponsored course will prepare you to safely operate on your next patient.

An explosion in technology (simulators, virtual reality, robots, methodology, validation and objective assessment), process (standardized curriculum), regulation (80 hour week), certification (competency based), re-certification (life long learning and assessment) and patient outcomes (outcome analysis) is creating an extraordinary new environment to train, assess, certify and monitor surgical skill performance that will help every surgeon train better, continuously improve their performance and have the confidence (and objective proof) that they truly are providing the safest and highest quality of care for their patients! But this will take more than simple training!

Simulator Practice Center

As an outgrowth of the postgraduate course on “The Role of Simulation in Residency Training and Continuing Medical Education, the following companies will be at the congress to allow attendees to practice their laparoscopic skills.

HAPTICA ProMs™ Surgical Simulators

Sir Ara Darzi, MD
New Technology for Measuring Psychomotor Skills

Anthony Gallagher, PhD
Design, Methodology and Validation for Surgical Simulators of the Future

Tickets are required for accompanying guests for this exciting morning.

FACULTY AND PRESENTATIONS

Blake Hannaford, PhD
The Blue Dragon and Hidden Markov Models and the Future of Surgical Training and Assessment

Sir Ara Darzi, MD
New Technology for Measuring Psychomotor Skills

Anthony Gallagher, PhD
Design, Methodology and Validation for Surgical Simulators of the Future

LAPAROSCOPY AND SLS REPORT
Destination Information

New York, New York USA

Whether you have an hour or a day, there’s something for everyone in The Big Apple. Central Park, American Folk Art Museum, Galleries, Times Square, Broadway Shows, Wall Street, Roosevelt Island, Chinatown, 5th Avenue, Metropolitan Museum of Art, Southside Seaport, Empire State Building, Harlem, Rockefeller Center, Restaurants, SoHo, Bronx Zoo, Alvin Ailey American Dance Theater, Tribeca, Museum of Modern Art, Carnegie Hall, Russian Tea Room, The Plaza, Greenwich Village, Fulton Fish Market, Tiffany’s, Radio City Music Hall, Guggenheim Museum, Little Italy, Circle Line Harbor Tour of Manhattan, Theatre District, New York Yankees, New York Mets, Statue of Liberty, Lincoln Center and so much more.

Visit www.nycvisit.com or www.ny.com for information on tours, sites, shopping, etc.

New York, New York USA

Hotel Rates

Single Room/Double Room: $249.00

These rates are European plan (no meals) plus applicable taxes. The SLS room block will be released after August 28, 2004. After this date, rooms will be on a space-available basis only. Rates are applicable 3 days before and after the conference based on availability.

In order to qualify for the special rate, you must make reservations by August 28, 2004, and mention that you are attending the “SLS Congress.”

Please make reservations early!

Travel Information

For negotiated airline discount rates contact Steve at The Store For Travel, toll free at (800) 284-2538. Outside the United States call (305) 251-6331. Please be sure to mention you are attending the SLS Congress in New York.

For those attending the conference who require special assistance (accessibility, dietary, etc.), please contact SLS no later than August 28, 2004 with special requests.

Cancellation Policy

Full registration fees are refundable if registrant cancels before August 28, 2004. An administrative fee of $150 will be deducted from fees for cancellations postmarked on or after August 28, 2004 through September 15, 2004. All requests for refunds must be made in writing and received by SLS, attention Flor Tilden, by the appropriate dates.

No refunds will be made after September 15, 2004.

General Information

Congress Credit Hours

Accreditation The Society of Laparoendoscopic Surgeons (SLS) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Designation The SLS designates this educational activity for a maximum of 26 category 1 credits toward the AMA Physician’s Recognition Award. Each physician should claim only those credits that he/she actually spent in the activity.

Half-Day Postgraduate Courses: 3 credits

Full-Day Postgraduate Courses: 6 credits

13th International Congress 3 days: 20 credits

Accommodations/Official Hotel and Meeting Site

Sheraton New York Hotel and Towers

811 Seventh Avenue at 52nd Street

New York, New York USA 10019

TEL: (212) 581-1000

FAX: (212) 252-4410

Reservations

Toll Free USA (800) 223-6550

www.sheraton.com

The Sheraton New York Hotel and Towers has been designated as the official hotel and meeting site for this congress. Located in the heart of New York City, the Sheraton New York Hotel and Towers is just steps from the excitement of Broadway theaters, Carnegie Hall, Times Square, Broadway, and the world-class shopping of 5th Avenue. This location is an ideal place from which to explore the city and immerse yourself in everything that is wonderful about New York City.

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