Bariatric Centers of Excellence as Another Pay-for-Performance Program
Alex Gandsas, MD
Michael Schweitzer, MD

Chronic Pelvic Pain: Endometriosis and Interstitial Cystitis
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Infections in Laparoscopic Surgery
Excerpt from Prevention and Management, 2nd Edition
Michael S. Kovac, MD
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ABOUT THE COVER

Alan Geiss, MD, performs bariatric surgery at Syosset Hospital’s Laparoscopic Bariatric Center, a part of North Shore–Long Island Jewish Health System.

Photograph © Bill Gallery.com

“My youngest is a laparoscopist. Beat that!”
LAPAROSCOPY TODAY

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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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**Bariatric Centers of Excellence as Another Pay-for-Performance Program**

**Alex Gandsas, MD, Michael Schweitzer, MD**

**INTRODUCTION**

Historically, employees in the corporate world have been financially rewarded for outstanding performance and for their contribution to the organization. This reward usually comes in quarterly or yearly bonuses, stocks, or both of these. In the current healthcare system, financial incentives are based solely on productivity measured by volume only, irrespective of the quality of care or outcomes. Doctors and hospitals are equally financially compensated regardless of the quality of care delivered to patients. In the current healthcare reimbursement system, a fee-for-service approach rewards volume productivity without concern for quality, the capitation model incentivizes efficiency while penalizing utilization with again the risk of compromising quality, and a salary system awards constancy without nurturing innovation or productivity. The current models leave the provider with few incentives to strive for or compete for high-quality medicine. A new paradigm of how patient care will be assessed, known as pay-for-performance (P4P), promises to motivate healthcare providers and health organizations by providing higher reimbursements as long as high “quality” evidence-based-medicine is delivered. Moreover, performance measures will be published to give the consumer a selection tool that will ultimately have an impact on provider image, market share, and income. For a program to be deemed successful, the financial rewards to physician groups should be the result of collaborative work between health plans, medical directors, academia, and industry experts. Furthermore, payments should vary depending on the type of incentive program chosen.

**HISTORY**

Following the report *Crossing the Quality Chasm* in 2001, in which more than 98,000 preventable deaths were attributed to medical errors, a growing consensus was reported that the new approach to health care should include fair payments to providers as a reward for good clinical management and outcome.

The concept of pay-for-performance is not new. Programs that compensated clinicians for being compliant with quality assurance programs were attempted in the past but failed due to the lack of physician support. These programs focused mainly on cost and utilization, rather than on clinical outcomes. With the incorporation of information technology as a means to better track patient data, most programs in charge of developing quality measures are likely to request reports of clinical outcomes. In the year 2000, the Integrated Healthcare Association, a California leadership group of health plans, physician groups, health systems, pharmaceutical industry, and consumer representatives, developed the concept of rewarding physician groups for good documented performance. Basically, this plan was based on (a) patient satisfaction (40%), (b) prevention (25%), (c) chronic care management (25%), and (d) use of information technology (10%).

In general, most pay-for-performance programs establish clinical goals, either as direct implementation of a therapy (eg, give patient aspirin after being diagnosed with myocardial infarction) or as an outcome measurement (eg, mor-
bidity and mortality). Nonclinical goals usually refer to the use of information technology applied to electronic medical records and patient satisfaction. Electronic medical records and computerized follow-up are the main ingredients of the P4P proposition. Practices will need to establish an electronic health infrastructure to provide the payer with performance data.

**Medicare Joins the Game**

Medicare has studied more than 270 hospitals enrolled in its program, looking specifically at the treatment of pneumonia, heart attacks, coronary artery bypass graft operations, and hip arthroplasties. After the first 9 months of implementing the program, an increase was noted in the median score of 6% for all conditions. In this test, hospitals scoring in the top 10% in quality ratings received an extra 2% financial compensation per case, while those scoring in the next 10% received payment increments of 1% per case. On the other hand, a reduction of 2% in payments was made to hospitals that failed to increase their baseline scores.¹

**Pay-for-Performance Still in the Works**

Proponents of pay-for-performance promise a new way of improving quality and reducing cost by offering financial incentives to those healthcare organizations, physicians, or both, who implement evidence-based medicine to improve clinical outcomes and who adopt a robust information technology infrastructure capable of handling electronic medical records. However, because it seems to be a new way of getting reimbursed for high-quality outcome data, risk adjustment parameters should be implemented to prevent physicians from drawing back from the high-risk patient.

In addition, a close collaboration should exist between providers and payers in setting up feasible goals and defining quality measures and bonus payment parameters, including payment timelines. This new relationship may impact new contract negotiations and caution should be exercised in order not to infringe on antitrust laws.

On another note, some practitioners may be concerned because this type of program may tend to lower the threshold, resulting in lower payments for those not participating or not achieving quality goals. Furthermore, a successful practice may capture a greater market share once it is identified as being “quality approved” by the payer. Concomitantly, data should be cautiously analyzed because outliers may skew small-volume practices.

In an ideal world, the participation in P4P programs should be completely voluntary, without punishing low-volume practices. Actually, the American Medical Association is concerned that these P4P models are simply “old-fashioned” withholding programs, in which payments from a withheld pool are returned to the practice once medical groups or hospitals meet specific performance criteria.

The fact that so many private payers and Centers for Medicare & Medicaid Services are experimenting with P4P programs indicates that this new paradigm in health care will continue to expand. Currently, more than 400 hospitals have enrolled in P4P programs, and it is thought that by the end of 2006 more than 100 programs will be available. Pay-for-performance has the potential to modify the current approach of health care

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¹ The study pool contained over 300 surgeons. Highlighted findings included:

- That demonstrated skill on video games is a compellingly strong predictor of advanced laparoscopic surgical drill skills, when compared with clinical training.

(continued on page 7)
by rewarding acute preventive care and promoting better use of medical resources.

**CENTERS OF EXCELLENCE FOR BARIATRIC SURGERY**

**Rational**

Obesity in America has reached epidemic proportions. It is estimated that more than 97 million Americans are overweight or obese. Furthermore, approximately 7 million are considered morbidly obese with a body mass index of 40 or higher and at least 100 pounds over their ideal body weight.

Studies have shown that a surgical option is the most effective way to achieve and maintain weight loss, significantly reducing major comorbidities, such as hypertension, type II diabetes, sleep apnea, and dyslipidemias.\(^3\)

Over the last 10 years, a significant increment has been noted in weight loss procedures performed in the United States per year, reaching more than 175,000 cases in 2005. Furthermore, last year, the Centers of Medicare and Medicaid Services have defined obesity as a disease instead of a condition. It has been estimated that the cost of treating obesity in the United States was approximately $117 billion, of which $61 billion is related to direct medical costs.\(^3\)

To maintain a level of efficacy, efficiency, and safety, the American Society of Bariatric Surgery (ASBS) and the American College of Surgeons (ACS) have launched the Centers of Excellence Programs, aimed at identifying practices, surgeons, and institutions able to deliver care to bariatric patients in the safest possible way. Both programs have set 125 as the minimum number of cases per year performed by surgeons to obtain full approval status (Table 1).

In many ways, the Bariatric Centers of Excellence Programs share similar principles with a pay-for-performance program.

1. Improve Clinical Outcomes: Bariatric surgery is known to be a challenging field because it has to deal with a high-risk population suffering from multiple comorbid conditions. Insurance companies and malpractice premiums are closely linked to physician performance. Good outcome data with a low morbidity and mortality rate may help contain or decrease premiums and the overall cost per patient.

2. Information Technology: Although not specifically required by Bariatric Centers of Excellence Programs, as seen in traditional pay-for-performance programs, information technology is a “must have” tool for data submission and subsequent analysis to qualify as a participating program.

3. Indirectly assess patient satisfaction by ensuring that the following resources are available:
   a. Access to healthcare providers
   b. Gowns
   c. Sensitive in-services
   d. Nutritional counseling
   e. Support groups
   f. Well-equipped facilities (furniture, bathrooms)

4. Financial reward is not rendered monetarily but instead with assumed growth of market share and fast precertification processing.

Several third-party payers have already launched their own Centers of Excellence criteria to iden-

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<table>
<thead>
<tr>
<th>Comparison Between ASBS and ACS Accreditation*</th>
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<tbody>
<tr>
<td><strong>Standard†</strong></td>
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<tr>
<td>JCAHO or AOA Approved</td>
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<tr>
<td>Accepts all cases or select cases</td>
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<td>Performed weight loss operations for the past 24 months</td>
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<tr>
<td>Surgery center performs at least X weight loss operations annually</td>
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<td>Has a director of bariatric surgery</td>
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<tr>
<td>Has a coordinator for bariatric surgery</td>
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<td>Director and active bariatric surgeons are ABS certified</td>
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<tr>
<td>Active surgeons must perform X weight loss surgeries annually</td>
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<tr>
<td>Provides the following specialty services, pulmonologist, cardologist, intensivist, infectious disease, nephrologist, otorhinolaryngologist, psychiatrist/psychologist, gastroenterologist, thoracic surgeon, and an orthopedist</td>
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<tr>
<td>Has a full-time anesthesiologist providing full coverage for all weight loss procedures</td>
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<td>Full coverage for pain service</td>
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<td>Fully staffed and medically equipped operating room for morbidly obese patients</td>
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<td>Fully staffed and medically equipped intensive care unit for morbidly obese patients</td>
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<td>Performs endoscopy procedures for morbidly obese</td>
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<td>Imaging service is equipped for morbidly obese</td>
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<td>General accommodations for morbidly obese</td>
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<tr>
<td>Implementing clinical practice guidelines</td>
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<tr>
<td>Agrees to report outcomes data</td>
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<td>Implementing quality improvement programs</td>
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<th><strong>Level 2a</strong></th>
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**TABLE 1 (continued on page 9)**
tify centers that have a comprehensive bariatric surgery program, including preoperative medical, psychological, and surgical assessment and long-term postoperative follow-ups. The program must also meet volume thresholds and surgeons should demonstrate a commitment to reporting outcome data.

Most of these criteria focus on outcomes, because these parameters are linked to hospital utilization. It is expected that while those practices with higher complication rates will drive costs up by utilizing several hospital resources, practices with good outcomes, mainly low morbidity, mortality, or both, will result in lower hospital readmissions, specifically those that fall outside the global period.

Centers of Excellence programs, like P4P, will lead to an ultimately less expensive approach to weight-loss surgery, financially rewarding surgeons who perform procedures with documented lower complication rates. Hospital administrations will be in a stronger position to capture a larger market share, negotiate a better case rate with insurance companies, and have better leverage to negotiate with malpractice insurance companies. Recently, Blue Cross and Blue Shield of North Carolina increased the average reimbursement rates by 30% to 50% to surgeons and bariatric surgery practices that have been endorsed as Centers of Excellence.6

Proponents of the Center of Excellence concept believe that this will help patients decide which surgeon or practice has an excellent track record and comparable outcome data with benchmark standards.

### TABLE 1 (continued from page 8)

*Source: American College of Surgeons Bariatric Surgery Center Network Accreditation Manual and SRC ASBS Center of Excellence Application Packet.

†AAHC=Accreditation Association for Ambulatory Health Care; ABS=American Board of Surgery; ACS=American College of Surgeons; AOA=American Osteopathic Association; ASBS=American Society for Bariatric Surgery; JCAHO=Joint Commission on Accreditation of Healthcare Organizations; NSQIP=National Surgical Quality Improvement Program; SRC=Surgical Review Corporation.

<table>
<thead>
<tr>
<th>Standard†</th>
<th>Level 1A</th>
<th>Level 1B</th>
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<th>Outpatient</th>
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<td>Protocol in place for patient follow up at 2 weeks, 3 months, 6 months, 1 year, and annually thereafter</td>
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<td>Protocol of patient rehabilitation including dietary, exercise, and plastic surgery counseling</td>
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CONCLUSION

Centers of Excellence programs are in many ways a preamble to pay-for-performance programs, where the patient and payers are empowered to choose a surgeon or practice with an excellent track record and comparable outcome data against benchmark standards.

Address reprint requests to: Alex Gandas, MD, Hoffberger Professional Building, 2435 W. Belvedere Ave, Ste 41, Baltimore, MD 21215, USA. Telephone: 410 601 4838, E-mail: webmaster@laparoscopy.com

Alex Gandas, MD, is Associate Professor of Surgery at The Johns Hopkins University School of Medicine and Head, Division Bariatric and Minimally Invasive Surgery at the Sinai Hospital of Baltimore. Dr Gandas sits on the Society of Laparoendoscopic Surgeons Board of Directors and is active in several other societies including the American Society for Bariatric Surgery. He has authored numerous scientific articles and is founder of the popular Laparoscopy.com Internet site for laparoscopic surgery.

Michael Schweitzer, MD, is Assistant Professor of Surgery at the The Johns Hopkins University School of Medicine and Director of Minimally Invasive Bariatric Surgery at the Johns Hopkins Bayview Medical Center. Dr Schweitzer has published his scientific findings in several journals and has presented his work throughout the United States. He is a member of several societies including the American Society for Bariatric Surgery and sits on the editorial board of three journals.

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JOURNAL WATCH: JSLS

Natural Orifice Translumenal Endoscopic Surgery: “NOTES.” Kavic MS. 2006;10(2):133-134. • This editorial provides an overview of NOTES, one of the latest ideas in minimally invasive surgery, and the issues surrounding the use of this technique. Kavic also discusses a NOTES White Paper developed in October 2005 by a working group of ASGE and SAGES. The paper outlines several potential barriers to the adoption of NOTES including prevention of infection and management of intraperitoneal complications.

JOURNAL WATCH: J Am Coll Surg

Laparoscopic Adjustable Gastric Banding: 1,014 Consecutive Cases. Ponce J et al. 2005;201:529-535 • Ponce et al examined the LAGB procedures that were performed at their center from October 2000 to December 2004. The authors were able to follow up with over 85% of the patients for 48 months. Women comprised 81.8% of the patients. Nine slippages occurred in the 44 patients who had perigastric dissection, while 14 occurred in the 970 patients with the pars flaccida technique. Ponce et al concluded that LAGB can achieve effective and safe weight loss, and that the pars flaccida technique reduced slippage when compared to the perigastric technique.
**Chronic Pelvic Pain: Endometriosis and Interstitial Cystitis**

**MAURICE K. CHUNG, MD, RPh**

**INTRODUCTION**

The more common gynecologic diagnoses of chronic pelvic pain (CPP) are pelvic adhesions, adnexal cysts, endometriosis, endosalpingiosis, ovarian remnant syndrome, pelvic congestion syndrome, residual ovarian syndrome, pelvic inflammatory disease, adenomyosis, and uterine leiomyomatas. Open management of women with CPP involves invasive procedures or surgical interventions. In fact, more than 40% of laparoscopies and 10% to 12% of all hysterectomies were performed as a result of CPP, which contributes to its significant economic burden. Endometriosis is one of the more prevalent gynecologic diagnoses among women with recurrent and progressive CPP. Among 58 patients who underwent pelvic pain center for treatment, 48 (83%) had biopsy confirmed active endometriosis. This finding is consistent with findings in the current literature. Endometriosis is the presence of ectopic endometrial glandular tissue outside of the endometrial cavity. Symptoms include dyspareunia; cyclic premenstrual, menstrual, or both, low abdominal pelvic pain; irritative voiding; and flares after sexual intimacy. Ideally, the diagnosis of endometriosis involves visual confirmation of the lesion during laparoscopy and histologic confirmation of the presence of both ectopic endometrial glands and stroma.

**INTERSTITIAL CYSTITIS**

**PAINFUL BLADDER SYNDROME**

Interstitial cystitis (IC), or pelvic pain of bladder origin, occurs predominantly in women 30 to 59 years of age, with up to 85% of reported cases in those 40 to 45 years of age. Along with endometriosis, IC is considered one of the more common disorders associated with CPP. Yet, only 500,000 patients with debilitating bladder problems have been diagnosed with IC, while the number of those with undiagnosed IC has been estimated to be more than 8 million. Still, some estimates range up to 28 million, with the overwhelming majority of these individuals incorrectly diagnosed or undiagnosed.

Symptoms include urinary urgency, frequency and/or pelvic pain in the absence of urinary tract infection. Although these symptoms represent the classic triad of IC, some patients have no pain and present with symptoms of overactive bladder. In addition, 15% of patients present with chronic pain and no urologic symptoms. Furthermore, many patients have dyspareunia and cyclic premenstrual, menstrual, or both, low abdominal pain exacerbated by sexual intimacy.

In the mid-1980s, the National Institutes of Health-National Institute of Diabetes and Digestive and Kidney Diseases (NIH-NIDDK) established clinical and cystoscopic diagnostic criteria for research studies of IC (Table 1). The consensus criteria for diagnosis of IC, including the National Institutes of Health-National Institute of Diabetes and Digestive and Kidney Diseases guidelines.}

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**TABLE 1**

<table>
<thead>
<tr>
<th>Positive Potassium Sensitivity Test Results Correlate With Cystoscopic Diagnostic Criteria for Interstitial Cystitis*</th>
<th>Positive Potassium Sensitivity Test Results Correlate With Cystoscopic Diagnostic Criteria for Interstitial Cystitis*</th>
</tr>
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<tbody>
<tr>
<td><strong>CPP + Cystoscopic Evidence of IC</strong> n=159/178 (89%)</td>
<td><strong>CPP + Positive PST</strong> n=146/178 (82%)</td>
</tr>
<tr>
<td>+ Positive PST n=140/159 (88%)</td>
<td>+ Cystoscopic Evidence of IC n=140/146 (96%)</td>
</tr>
</tbody>
</table>

*Glomerulations and hematuria according to the National Institutes of Health-National Institute of Diabetes and Digestive and Kidney Diseases guidelines. PST = Potassium Sensitivity Test; IC = interstitial cystitis, CPP = chronic pelvic pain. FN = 178.
exclusions and cystoscopic evidence of ulcers and glomerulations, were widely accepted for both clinical and research purposes and thereafter became the de facto criteria for establishing a clinical diagnosis. A recent study reported glomerulations in about 45% of “normal” women undergoing tubal ligation. Unfortunately, the women were not specifically questioned about urinary or gynecologic symptoms, such as CPP, and were not asked to complete voiding logs or pain questionnaires. Some of these women may have had occult IC characterized by pelvic pain, irritative voiding symptoms, or both of these.

Figure 1. Left lower corner shows mucosal cracks, which are frequently found in patients with IC. All the others show glomerulations.

The NIH-NIDDK criteria were found to be too restrictive for clinical use based on results of the Interstitial Cystitis Database Study because more than 60% of patients evaluated by experienced clinicians and thought to have or to definitely have IC did not meet the NIH-NIDDK criteria.

Similar to the diagnostic criteria for IC, the pathogenesis and cause of IC remain incompletely defined. A consensus is emerging, however, regarding the central role of bladder epithelial dysfunction, bladder sensory nerve upregulation, and mast-cell activation in the genesis of IC.

The urothelial surface is lined by impermeable bladder surface mucin composed of sulfonated glycosaminoglycans and glycoproteins. Injury to this surface can cause changes in permeability that allow potassium ions to traverse the urothelium, depolarize sensory and motor nerves, and activate mast cells.

On the basis of this hypothesis, Parsons et al developed the Potassium Sensitivity Test (PST) to indicate abnormal permeability of the epithelium, which may be used to support a diagnosis of IC. The use of PST has been validated in several studies. Over 80% of CPP patients demonstrated positive potassium sensitivity, suggesting a bladder component to their pain (IC).

Parsons et al also designed a Pelvic Pain and Urgency/Frequency (PUF) symptom scale that provides balanced attention to bladder-origin pelvic pain (IC) and to pelvic pain or dyspareunia. The severity of IC symptoms and the extent to which the patient is bothered by each symptom are measured on a scale of 0 (no symptoms) to 35 (most severe). PST was used to validate PUF as a diagnostic tool. In patients suspected of having IC with a PUF score of 10 to 14 (moderate symptoms), 74% showed positive potassium sensitivity. Furthermore, it was shown that a PUF score of 15 or higher is associated with an 84% chance of a positive PST, which provides strong evidence for the presence of IC.

ENDOMETRIOSIS

Endometriosis is considered one of the 4 most common diagnoses in women with CPP. Based on findings from many studies, at least 80% of patients with CPP have endometriosis.

To establish a definitive diagnosis of endometriosis, many opinion leaders still believe that laparoscopy is necessary. However, diagnosing endometriosis during laparoscopy can be difficult and is dependent on the surgeon’s level of experience. An inexperienced surgeon may miss the diagnosis of endometriosis because its appearance can vary widely. Diagnosis also presents other challenges. Although surgeons are urged to obtain
histologic confirmation of endometriosis, it is often uncertain whether endometriotic implants or adhesions found during surgery are the source of the patient’s pain. Although pelvic adhesions are diagnosed in approximately 25% of women with CPP or without endometriosis, their relationship to CPP is still controversial.\textsuperscript{19} It is prudent, therefore, to consider other possible causes of CPP even in the presence of endometriosis, especially in patients whose symptoms persist despite therapy.

Although endometriosis has been recognized as a major cause of CPP, the treatment of endometriosis is often not successful. Due to a lack of adequate randomized controlled trials, evidence is insufficient to support the efficacy of medical therapy, surgical therapy, or both, for CPP and endometriosis. As a result, management of women with CPP considered secondary to endometriosis includes a vast range of therapeutic approaches that are often suboptimal and costly.\textsuperscript{19} To complicate management even further, endometriosis has been found in more than 60% of asymptomatic patients and progressive disease exists in close to 60% of patients overall.\textsuperscript{19,30,31}

When endometriosis is found at the time of surgery, destruction of the lesions by fulguration, excision, or both, is recommended. Although excisional surgery offers a better success rate in treating endometriosis in patients with CPP, it also requires a higher level of surgical skill.\textsuperscript{20} Many patients, therefore, may receive inadequate treatment for their endometriosis by less experienced surgeons, which, in turn, can lead to persistent and recurrent disease. Furthermore patients have undergone numerous laparoscopies and have had a hysterectomy and still suffer from CPP.

Interestingly, endometriosis has been found to involve the urinary tract and has been reported in at least 16% of women undergoing a laparotomy for the condition.\textsuperscript{22} Recently, there was a report on a small series of patients with bladder endometriosis.\textsuperscript{31} In addition, it has been demonstrated that 79% of patients with persistent chronic pelvic pain after a hysterectomy have IC.\textsuperscript{41} It is advisable, therefore, to evaluate urinary symptoms in patients with CPP and endometriosis. Strict adherence to this principle has led to the discovery that IC and endometriosis, the evil twins, can coexist in women with CPP.

ENDOMETRIOSIS AND INTERSTITIAL CYSTITIS

The Evil Twins Study

Results of recently published papers\textsuperscript{13,26,27,35} demonstrate the presence of endometriosis and IC, the “Evil Twins,” in 38% to 80% of patients with chronic pelvic pain based on the potassium sensitivity test and laparoscopic and cystoscopic evaluation.

In our recent “The Evil Twins” study\textsuperscript{29} of 178 patients, 159 (89%) were diagnosed with interstitial cystitis by cystoscopic evidence. A positive potassium sensitivity test was achieved in 146 patients (82%). Both IC and PST were found in 140 (78.6%) patients. Biopsy confirmed endometriosis was found in 134 patients (75.2%). Both IC and endometriosis were found in 115 patients (65%). In the positive PST group of 146 patients, 140 (96%) were diagnosed with IC by cystoscopy. Irritable urinary symptoms occurred in 143 of 178 patients (81.5%) with chronic pelvic pain. Urinary incontinence was present in 77 (43.3%) patients. The average pelvic pain (PUF) score was 14 of 35. An average of 20% of the study patients had no urinary symptoms. Painful overactive bladder symptoms were complaints among not only patients with endometriosis but also those with negative findings following laparoscopic evaluation. In fact, the 44 patients with no endometriosis showed significant improvement in their symptoms of CPP, including their painful overactive bladder symptoms after cystoscopic hydrodistention, indicating that IC could be the cause of their CPP. It was concluded, therefore, that patients with CPP (80%) with or without urologic symptoms of urgency/frequency (20%) may in
fact have IC as a component of their pelvic pain. If cystoscopy had been performed only in patients with irritative voiding symptoms/overactive bladder, a diagnosis of IC would have been missed in approximately 20% of patients. Furthermore, cystoscopy/hydrodistention is often performed only in patients with a negative laparoscopic evaluation. Consequently, patients are required to undergo 2 separate procedures while under general anesthesia, and the diagnosis of IC is delayed in approximately 80% of patients. Cystoscopy/hydrodistention should be considered as an integral part of the surgical evaluation of patients with CPP.

Several modalities are used to diagnose IC. Cystoscopic hydrodistention and clinical presentation remain the “gold standard.” However, this gold standard is not ideal and is considered controversial by many. In addition, the stringent diagnostic criteria for IC developed by the NIH-NIDDK and the controversy concerning the accuracy of less stringent criteria have interfered with recognition of IC as a major cause of CPP. To make the problem worse, gynecologists in general are not accustomed to addressing irritative urinary symptoms in patients with CPP, thus making the diagnosis of IC less common.

The PUF questionnaire and the PST as advocated by Parsons and colleagues have emerged as a simple office screening tool and diagnostic procedure, respectively, for patients with symptoms of CPP and IC. These tests have been recently validated as diagnostic approaches for IC. In this study, the diagnostic accuracy of PST increased when performed in conjunction with cystoscopic hydrodistention. Notably, it has been shown that a PUF score of 15 or higher is associated with an 84% chance of a positive PST, which provides strong evidence for the presence of IC.

It is very important to use all existing screening and diagnostic modalities to establish an early diagnosis of IC. When surgery is indicated, cystoscopic hydrodistention in conjunction with laparoscopy is recommended to establish an earlier diagnosis of endometriosis and IC/CPP of bladder origin, the evil twins of CPP.

Simple conservative methods exist for treating IC, including diet, pelvic floor physical therapy, and medications, such as hydroxyzine and pentosan polysulfate sodium (Elmiron, Ortho-McNeil Pharmaceutical, Inc, Raritan, NJ). Recent published articles have indicated the efficacy of oral contraceptives in treating CPP and IC. We have presented a clinical study of using intravesical instillation of anesthetic in patients with chronic pelvic pain resulting in close to a 40% reduction in pain symptoms in 8 to 10 weeks.

Many thought leaders believe that the treatment of women with CPP has been ineffective because the underlying cause is actually urologic rather than gynecologic. Therefore, it is reasonable to conclude that ineffective management of CPP and treatment failures may be in part the result of missed diagnoses of IC.

In summary, it is desirable to have a urologist perform cystoscopy and hydrodistention, especially when these procedures are new to the gynecologist. If, however, a urologist is not available to assist in the procedure, or alternatively, if the gynecologist does not wish to perform a cystoscopy and hydrodistention, he or she should consider using the PST test. This test has validated the PUF questionnaire, and together the PUF and PST are more than adequate to confirm a diagnosis of IC.

**Overlap of Interstitial Cystitis and Endometriosis: The Underlying Neuropathology**

Both endometriosis and IC are CPP syndromes that can be frustrating for patients and physicians alike. These CPP syndromes are associated with other pain syndromes, including irritable bowel syndrome (IBS), fibromyalgia, dyspareunia, and...
vulvodynia. The association may be as a result of neuro-upregulation, and pain centralization; other neuropathic states are reviewed elsewhere and include visceral hyperalgesia (eg, irritable bowel syndrome), viscerosomatic hyperalgesia (eg, essential vulvodynia associated with IC), viscerosvesical hyperalgesia (eg, IBS associated with IC), and abnormal visceromuscular reflexes (eg, pelvic floor tension myalgia).

A review of the neuropathology of CPP and multisystem interactions involved in all the above-mentioned clinical pain syndromes demonstrates that the significant overlap of IC and endometriosis observed in our studies is to be expected. A multidisciplinary approach to chronic pain has been repeatedly shown to be highly efficacious. The substantial efficacy of this approach can potentially be attributed to down-regulation of the upregulated dorsal horn with resultant relief of chronic pain. This concept of the visceral pain syndrome should encourage clinicians to abandon an organ-specific approach to the evaluation and treatment of their patients with CPP. Instead, they should pursue a more holistic and mechanistic management strategy in this patient population. Our study strongly supports the rationale for this approach.

Chung is also in private practice in Lima, Ohio. He has published in JSLS, Journal of the Society of Laparoscopic Surgeons and other journals as well as presented his clinical studies in national and international conferences. Dr Chung sits on the boards of the International Pelvic Pain Society and the International Society of Gynecologic Endoscopy.

References


(cont)
(continued from page 15) References: Chronic Pelvic Pain: Endometriosis and Interstitial Cystitis

Members of SLS support both the application of minimally invasive innovations as well as the application of evidenced-based medicine in our surgical practices.

In the past 10 years, urologists and gynecologists have witnessed the introduction and widespread adoption of the use of synthetic mesh in the management of patients with stress urinary incontinence (SUI). The introduction of the Tension Free Vaginal Tape, essentially revolutionized the treatment of SUI. “Long term” (10 yr) data has shown the tension-free mid-urethral sling to be a relatively safe and efficacious minimally invasive treatment option for SUI.

We are now witnessing the propagation of the use of synthetic mesh in the correction of a wide range of vaginal vault defects including total uterine prolapse. Surgical application of mesh for the repair of pelvic organ prolapse has been based on theoretical principles, extrapolation from the general surgery literature, industry sponsorship and surgeon preference, as we do not yet have evidence-based data to support their widespread use. Yet, many pelvic reconstructive surgeons have embraced their application as an even more minimally invasive alternative than laparoscopic pelvic reconstruction.

We will review the anatomical and surgical principles involved in the placement of a total vaginal mesh, review the surgical technique in video and review some of the preliminary surgical outcomes data.
Conversion From Open to Robotic-Assisted Radical Prostatectomy Is Associated With a Reduction in Positive Surgical Margins Among Private Practice-Based Urologists RALPH MADEB, DRAGAN GOJLANIN, CRAIG NICHOLSON, JOY KNOPF, KELLY PICONE, FREDERICK TONETTI, JOHN R. VALVO, LOUIS EICHEL

INTRODUCTION: Several recent studies have suggested that leaders in robotic surgery have decreased their own positive margin rates by switching from open to robot-assisted radical prostatectomy. Theoretically, this improvement is largely attributed to enhanced visualization of the deep pelvis and precision of dissection afforded by the instrumentation. To date, it has not been determined whether this phenomenon exists among nonfellowship-trained urologists in private practice. Herein, we describe the positive margin rates of 2 nonfellowship-trained private practice urologists who converted from open radical retropubic prostatectomy to robot-assisted laparoscopic radical prostatectomy.

METHODS: The margin positivity data from 2 nonfellowship-trained, private practice urologists (surgeon 1 and surgeon 2) were reviewed retrospectively. The last 50 cases of open radical retropubic prostatectomy from each surgeon were compared with the first 50 and 43 robotic prostatectomy cases of surgeons 1 and 2, respectively. A positive surgical margin was defined as a tumor present at the inked margin of the prostate.

RESULTS: A significant decrease occurred in the overall and pT2 positive margin rates for both surgeons. The overall positive margin rate and pT2 positive margin rate for surgeon 1 dropped from 44% to 20% and from 37% to 5.7%, respectively, after changing from open to robotic prostatectomy. For surgeon 2, the overall positive margin rate changed from 26% to 16% and the pT2 positive margin rate changed from 27.5% to 8% after converting.

CONCLUSION: Changing from open to robotic-assisted radical prostatectomy may improve the ability of urologists to obtain negative surgical margins. This phenomenon does seem to apply to nonfellowship-trained urologists in private practice and can be realized within the first 50 cases performed.

For additional information about SLS programs for residents, including the Outstanding Laparoendoscopic Resident Award, scholarships to SLS conferences, and special membership rates, visit www.Laparoscopy.org.

JOURNAL WATCH: J Minim Invasive Gynecol
Laparoscopic Resection of Intestinal Endometriosis: A 5-Year Experience. Ribeiro PAA et al. 2006;13(5):442-446 • The authors set out to describe the clinical manifestations, surgical techniques, and observed complications in patients undergoing laparoscopic resection of intestinal deeply infiltrating endometriosis. Ribeiro PAA et al describe their evaluation of and 7-step surgical technique for treating 125 patients who underwent laparoscopic radical excision followed by resection of the rectosigmoid colon for treatment of intestinal endometriosis. The authors concluded that symptoms of intestinal endometriosis are not specific; laparoscopy is a safe and effective treatment; and special attention must be given to intestinal anastomosis and nerve preservation.

JOURNAL WATCH: PROTO
Down the Hatch. Slack C. Spring 2006:14-19 • NOTES or natural orifice transluminal endoscopic surgery could be the next big thing in surgery, and this article explains the procedure, its brief history, its potential, and its potential drawbacks. The author provides thoughts on the topic from several gastroenterologists and laparoscopic surgeons who point out possible advantages, such as a reduction in the need for general anesthesia, as well as new equipment needs to correct for issues with spatial orientation.
Infections in Laparoscopic Surgery

MICHAEL S. KAVIC, MD, GAYETTE F. GRIMM, MD, JOHN THOMAS, MD

INTRODUCTION

A common complication of surgery is infection, which can range from minor wound infections to large, complex intraabdominal catastrophes, as well as infections distant to the site of surgery. The purpose of this chapter is to synthesize current clinical and basic science knowledge of laparoscopic infections and collate that knowledge into a set of coherent principles. This will be done by using laparoscopic hernioplasty as a conceptual framework of a sound approach to management of prosthetic infections.

GRAFT INFECTION

Most cases of surgical infection are due to deficiencies in surgical technique (including breaks in sterile technique) or failure to control the bacterial milieu of a surgical wound. For instance, delicate handling of tissues, gentle dissection, and meticulous homeostasis are time-honored surgical principles that diminish the potential for infection. Thus, any surgical technique that minimizes the amount of contamination and decreases the amount of devitalized tissue at the operative site will decrease the incidence of surgical-site infection by decreasing the quantity of nutrients available to potential pathogens.

Distinct differences exist between laparoscopic procedures in gaining access to the operative site. In general, laparoscopic surgery has smaller skin incisions, less dissection (especially in the subcutaneous tissues), and incisions that are often distant from the operative field. This causes less traumatized tissues overall and provides fewer nutrients for pathogens as discussed above. In addition, it is thought that the smaller incisions grant fewer opportunities for introduction of bacteria into an operative site and thereby reduce the chance of infection.

Sutures or tacking materials also make a great difference in the incidence of surgical infection. As previously noted, the presence of suture material in a wound decreases the minimum bacterial concentration needed to produce clinical infection. Braided sutures compound this problem due to the presence of very small interstices between the braided strands that provide a "safe harbor" for bacteria. But even monofilament suture can have interstices, such as between the throws of a knot, that can harbor bacteria. Thus, the use of any suture can increase the risk of infection. In some laparoscopic procedures, especially laparoscopic hernia repairs, inert, metal-anchoring tacks or clips are used. These devices are minimally reactive and have no interstices, thus providing little place for bacteria to hide and cause infection.

Finally, the presence of mesh in a surgical site also increases the chance of infections by reducing the threshold numbers of bacteria required for infection and increasing the virulence factor of bacteria. In the presence of a synthetic graft, bacteria bind to the prosthesis via microbial surface components recognizing adhesive matrix molecules (MSCRAMMs) that are elaborated by the bacteria themselves. These adhesion molecules recognize and bind to elements of the host's interstitial matrix. The binding process then leads to an elaboration of a glycoprotein layer that impedes the entrance of host bactericidal elements. In addition, traumatized tissues have surfaces devoid of a protective cellular layer,
competent protective extracellular polysaccharide (glycocalyx), and a basement membrane, all of which promote bacterial growth.\textsuperscript{11,13}

The type of mesh chosen for hernia repair can also affect the chance of infection because macrophages and neutrophils require larger pores for admission than bacteria do. Synthetic mesh can be classified by pore size into 4 groups:

Type I—Prostheses with pores greater than 75 microns. Examples: Marlex, monofilament polypropylene meshes;\textsuperscript{4,14,15}

Type II—Prostheses with pore sizes less than 10 microns in at least 1 of their 3 dimensions. Example: ePTFE, Dual Mesh, surgical membrane;

Type III—Macroporous prosthesis with multifilamentous or microporous components. Examples: braided Dacron, braided polypropylene;

Type IV—Biomaterial with submicron pore size. Example: silastic.

The completely macroporous materials (all pores >10 microns) will allow for admission of macrophages, fibroblasts, blood vessels, and collagen fibers into the mesh, thus providing a lesser chance of infection.

In summary, current techniques of laparoscopic hernia surgery have optimized conditions to make bacterial infection of the prosthetic materials less likely. Reducing the potential inoculum with small incisions remote from the operative site minimizes bacterial contamination overall and especially to the operative site. Laparoscopic dissection is typically more meticulous than open methods due to the magnification of laparoscopic imaging, thus the amount of devitalized tissue available for bacteria to bind and utilize as nutrition is reduced. Common use of Type I biomaterials and fixation with staples or other inert tacking devices eliminates interstices less than 10 microns. The result of using the laparoscopic method and these materials is a hernia repair that is quite resistant to infection with infection rates reported as 0% to 0.1%.\textsuperscript{10,18,22,23}

**DIAGNOSIS AND TREATMENT OF MESH INFECTIONS**

Complications of laparoscopic hernioplasty can occur, and any deviation from normal postoperative recovery should raise suspicion of a problem. In general, the complications are similar to those of open hernioplasty, and the differential diagnosis should include hernia recurrence, hematoma, seroma, orchitis, neuralgia, “mesh inguinodynia,” and mesh infection.

Two distinct types of prosthetic infection have been described. The first type is an uncomplicated infection caused by contamination of the prosthetic material at the time of operation. This contamination may be from endogenous or exogenous sources. In uncomplicated infections, the source of sepsis is localized and not ongoing. The second type of prosthetic infection, a complicated prosthetic infection, usually results from mesh migration and erosion into adjacent viscera. In these instances, an ongoing source of sepsis is present from the eroded organ.\textsuperscript{10,16-21}

Uncomplicated infection can frequently be treated by local measures without removal of the prosthesis (particularly if a Type I mesh with large pores constructed of monofilament material has been utilized).\textsuperscript{12} Graft migration, however, requires surgical intervention for removal of the mesh and management of the enteric source of sepsis.\textsuperscript{11,16,18-20} Distinguishing between these 2 types of complications is essential for successful management. Their clinical signs and symptoms, however, are not necessarily specific to mesh infection and may be indistinguishable from each other as well as from other postherniorrhaphy complications.

For example, hernia recurrence after laparoscopic inguinal hernia repair can present with
swelling at the operative site, pain, obstructive symptoms, and skin discoloration. The presentation of recurrence may be early or delayed. Differentiating recurrence from other types of complications is important because successful treatment of mesh infections depends on the results of bacteriologic studies of fluid aspirated or drained from the operative site. Aspiration or incision and drainage of the visceral content of a recurrent hernia, however, could prove disastrous. Ultrasound and computed tomography are useful to rule out early hernia recurrence as a cause for prolonged groin swelling or pain. Radiographic evidence of recurrence does not rule out infection, but does mandate reoperation.

Once recurrence is eliminated, the differential includes infection, seroma, hematoma, and orchitis along with neuralgia. A diagnosis of postoperative neuropathy is established if the patient describes pain in the distribution of the ilioinguinal, iliohypogastric, genitofemoral, or lateral femoral cutaneous nerve that has arisen since surgery. In addition, there must be no systemic signs or symptoms of sepsis (ie, fever, leukocytosis, elevated erythrocyte sedimentation rate) and radiographic imaging is normal. Delayed presentations of postoperative neuropathy have been reported. Confirmation of neuralgia is aided when infiltration of the involved nerve with local anesthetic relieves pain. Treatment may require medication such as amitriptyline, local injection with steroid, or mesh removal with or without neurectomy of the iliohypogastric, ilioinguinal, and genitofemoral nerves.

Swelling from hematoma, seroma, and orchitis must be differentiated from swelling caused by mesh infection, as the treatment of these conditions is quite different. Seroma and hematoma can be managed expectantly with resolution expected within 6 weeks to 12 weeks. Orchitis is usually painless and associated with an indurated testicle that slowly subsides with or without antibiotics and can result in an atrophic testicle, usually within a year. Mesh infections often have the universal signs of infection: pain, redness, swelling, warmth, and possibly fever and leukocytosis.

Occasionally, persistent draining sinus tracts have been described with complicated and uncomplicated mesh infections and may herald a stitch abscess or a more severe infection.10,11,16,19,20 Once infection is suspected and recurrence is ruled out, aspiration of fluid with appropriate bacteriologic studies should be done. Additionally, cultures of any drainage from chronic sinus tracts should be performed. Aspirations of purulent fluid should prompt open drainage and administration of broad-spectrum antibiotics.11 Polymicrobial infections or growth of enteric organisms should raise the suspicion of a visceral injury and prompt radiographic investigation with computed tomography or fistulography.11,16,20

Infections that are not the result of an enteric source and involve Type I mesh are generally treatable by exposure of the prosthesis and removal of suture and unincorporated mesh, along with local wound care. Good results usually follow.11,12 Vacuum system dressings have been used for infected wounds to reduce the effect of wound secretions and encourage tissue ingrowth. Early experience with these systems suggests that they may have utility in conservative management of open infected abdominal wall grafts (Figures 1 and 2).

Type II prostheses typically need to be removed, as tissue incorporation is impaired in the presence of infection. A trial of conservative management with antibiotic, exposure, and local wound care, however, is warranted before removal. On the other hand, enteric fistulas will not respond well to local care and require removal of the mesh as well as repair of the fistula independent
of the type of mesh used. The operative approach for mesh removal and fistula repair may require open incision and drainage of the groin followed by laparotomy. Alternatively, a laparoscopic intervention may be attempted if the operator has sufficient skill and experience. With infection, mesh usually becomes unincorporated from the operative site and is not difficult to remove. The operator’s experience and judgment guide the choice or approach (open or laparoscopic).

**SUBSEQUENT REPAIR**

As described above, it is rare for mesh to be removed because of an infectious complication. In addition, when mesh is removed after herniorrhaphy, recurrence seems to be infrequent. However, when mesh must be replaced because of infection, care must be taken to avoid recurrent infection. Deyo$^{11}$ has outlined an approach to this problem based on orthopedic experience with implantable prostheses. Essentially, this investigator advocates aspiration of any infected material to test for residual bacteria. If percutaneous microbiological wound sampling is positive, remove the prosthesis and treat the infection. Once cultures are negative, repair with a new prosthesis is possible; otherwise perform wound exploration with secondary closure (Figure 3).

**CONCLUSION**

In summary, infection related to laparoscopic surgery is not much different from that of conventional surgery, and all the same principles of good surgical practice hold true. The major difference is that infection seems to be much reduced with laparoscopy when compared with conventional surgery. This is likely due to a multitude of reasons, such as smaller incisions, less trauma to tissues, and use of inert foreign bodies. But, some studies suggest that physiological reasons, such as less immune system depression,
lar fashion to conventional surgical infections.

Michael S. Kavic, MD, is Director of Education, General Surgery for the St. Elizabeth Health Center; Professor of Surgery and Vice Chair, Department of Surgery for the Northeastern Ohio Universities College of Medicine; and an Adjunct Professor of Surgery, Department of Surgery at the University of Pittsburgh School of Medicine. He is a founding member of the SLS and is Editor-in-Chief of JSLS, Journal of the Society of Laparoendoscopic Surgeons. Dr Kavic has written and published numerous book chapters, journal articles, and editorials and has lectured nationally and internationally on laparoscopic surgery. He is a past president of both SLS and the American Hernia Society.

Gayette F. Grimm, MD, is a general surgeon at Gundersen Lutheran Clinic in Prairie du Chien, Wisconsin. She completed her general surgery internship and residency at St. Elizabeth’s Health Center in Youngstown, Ohio. Dr Grimm is an active member of the Society of Laparoendoscopic Surgeons.

John Thomas, MD, is with the Department of General Surgery at Stonewall Jackson Memorial Hospital in Westin, West Virginia. He completed his residency at Mount Carmel Health. Dr Thomas is an active member of the Society of Laparoendoscopic Surgeons.

References
Urology Laparoscopic and Robotic Surgery Update

HOWARD N. WINFIELD, MD

Since 1990, urologic surgeons have taken a leading role in minimally invasive surgery (MIS). Laparoscopic radical nephrectomy, first described in 1991, is now considered the “gold standard” for localized renal tumors. Laparoscopic partial nephrectomy for renal masses ≤ 4 cm is gaining increasing popularity. However, this procedure continues to present significant challenges requiring laparoscopic suture repair of the surgical defect, hilar control of renal vessels to minimize hemorrhage and concern for warm ischemic damage to the remaining renal parenchyma. Renal cooling and hemostatic techniques are in evolution to overcome these obstacles. Encouraging long term results (>5 years) are maturing to demonstrate the effectiveness of laparoscopic cryoablation and radiofrequency ablation for the treatment of small renal masses. Laparoscopic radical prostatectomy is more popular in Europe, and radical cystectomy is performed in select centers in the United States with promising results.

Robotic surgery has found major applications in the field of Urology. Radical prostatectomy (RP) is the most frequently performed robotic procedure, outstripping all other surgical disciplines. In 2002 there were only 600 robotic prostatectomies performed whereas in 2004 there were 9600 cases reported. This exponential growth is expected to continue. Oncologic effectiveness, urinary continence, and erectile function are very comparable with open surgery. The blood loss and convalescence appear to be superior with robotic RRP. Robotic-assisted pyeloplasty for ureteropelvic junction has gained popularity with excellent results comparable to open or laparoscopic pyeloplasty. Robotic radical cystectomy is performed in select centers with encouraging results.

Urologists continue to play an active role for surgical training in the form of computer virtual reality simulation, validity testing and core programs in minimally invasive surgery for residents. Improved methods to provide continuing medical education in minimally invasive surgery for urologists has become an important focus of the American Urological Association.

JOURNAL WATCH: J Minim Invasive Gynecol

The Use of Lightly Embalmed (Fresh Tissue) Cadavers for Resident Laparoscopic Training. Levine RL et al. 2006;13(5):451-456 • To estimate if their training program significantly and relatively rapidly taught laparoscopic surgical skills, the authors assessed PGY 2 and PGY 3 obstetric/gynecology residents using an LTS2000 physical reality simulator before and after training on a lightly embalmed cadaver. The authors describe their program and address the often noted drawbacks of using cadavers. Levine RL et al concluded that their training program appeared to improve laparoscopic surgical technique.

JOURNAL WATCH: JSLS

A Warm-Up Laparoscopic Exercise Improves the Subsequent Laparoscopic Performance of Ob-Gyn Residents: a Low-Cost Laparoscopic Trainer. Do AT et al. 2006;10(3):297-301 • Do et al found that a brief warm-up laparoscopic transference exercise can significantly improve the performance of both novice and advanced surgical practitioners.
WEBSURG.com  Frequently updated, new chapters and new videos are added to the World Electronic Book of Surgery on an ongoing basis. Recently, however, the Electronic Book has added more than the usual chapter or video—a whole new section on NOTES (natural orifice transluminal endoscopic surgery). If you aren’t familiar with NOTES, this section offers an overview as well as lectures, slideshows, and expert debates and interviews about the procedure.

ISMICS.org Visit the website of the International Society for Minimally Invasive Cardiothoracic Surgery and link to Innovations—Technology and Techniques in Cardi thoracic and Vascular Surgery, the Society’s official publication. Volume 1 is currently freely available. Abstracts from the Ninth Annual Scientific Meeting, held June 7–10, 2006, have also been posted.

UROLOGYTIMES.com / CONTEMPORARYUROLOGY.com Search the websites of these sister publications for the latest news and up-to-date articles in urology. Latest features free online include “Symposium: Robotic Surgery in Urology: Hype, Hope, and Reality,” and “Ureteroscopy for Large Renal Calculi: Treatment Methods and Indications.”

MEDPAGETODAY.com offers news for all specialties. Use the sites RSS feeds to follow the top stories. Register with the site for the opportunity to earn CME credit for reading the news. Recently posted teaching briefs include “Synthetic Mesh Prevents Hernias in Open Gastric Bypass,” and “Duodenal Switch Called Bariatric Surgery of Choice for ‘Super-Obese.’”

PEDIATRICROBOTICSURGEONS.com offers free videos of some of the robotic procedures performed at the Children’s Hospital of Iowa, including Robotic Newborn Congenital Diaphragmatic Hernia Repair performed on the smallest patient to ever undergo robotic surgery. Video from the Annual Pediatric Robotic Symposium and links to news and articles about pediatric robotic surgery are also available.

FACS.org Visit the website of the American College of Surgeons for easy access to surgery news through online postings of ACS NewsScope, a weekly email update; PDFs of Surgery News, the ACS official newspaper; and PDFs of articles from the Bulletin of the American College of Surgeons.

IPEG.org Go to the International Pediatric Endosurgery Group website to download the IPEG 2006 Annual Meeting abstracts.

LAPAROSCOPY.org New features, new member benefits… In keeping with the mission of SLS to provide education to physicians around the world, exciting new features have been added to the SLS website. In addition to the first edition of the SLS complications textbook being freely available to read online, download, or search, the site now offers a minimally invasive search engine that allows you to easily search for and read articles from JSLS, Journal of the Society of Laparoendoscopic Surgeons. The most recent issues are already freely available with back issues being added on a regular basis.

Would you like to increase your chances of getting your manuscripts published? Another new feature of Laparoscopy.org, “SLS Guide: Writing Effectively for MIS Journal Publication,” has been posted to help new and experienced authors prepare their professional papers for publication.

And, for those who couldn’t make it to the SLS Annual Meeting, proceedings and highlights from the conference are being posted so members can read about everything from the award winners to the general sessions and laparoscopy updates.

Plans include the launch of Laparoscopy.Blogs.com minimally invasive discussion forums and making podcasts of major SLS Annual Meeting sessions freely available.

Visit www.Laparoscopy.org to take advantage of these remarkable new tools.
PRODUCTS FOR THE LAPAROSCOPIC SURGEON

Developed in conjunction with laparoscopic surgeons, Aesculap’s PO style monopolar handles were designed to incorporate the features needed for efficient use and precise performance during laparoscopic procedures. Ergonomically designed, the handles offer the surgeon comfort in various hand positions and provide tactile feedback. The ratcheted model features a one-step release pad which immediately unlocks and re-engages the ratchet with one simple movement and the ability to convert to a non-ratcheted design. Contact Aesculap Inc., www.Aesculap.com

STARION INSTRUMENTS’ TLS3 5-mm laparoscopic thermal ligating Shear utilizes thermal welding technology to simultaneously seal and divide tissue without passing electrical current through the tissue and without damage to adjacent tissues or structures. Primarily designed for laparoscopic procedures, applications of the TLS3 can vary from open gastric bypass surgeries to laparoscopic hysterectomies. TLS3 utilizes thermal heating elements on both of the opposing jaws for a more uniform, high integrity seal achieved in a shorter period of time. It can be used to grasp and dissect soft tissue as well. Contact Starion Instruments, www.StarionInstruments.com

Yet another step away from bladed ports, Applied Medical’s Kii Access System features seal technology with high flow insufflation, a shielded septum for durability, tunneled entry for smooth instrument exchanges with reduced drag, and simple seal removal and reattachment for rapid desufflation and specimen removal. The Kii Access System also boasts the latest optical Separator technology designed to allow for clear visualization of individual tissue layers. Contact Applied Medical, www.AppliedMedical.com

The Karl Storz Rotocut G1 Morcel-lator offers direct power transmission is a fully auto-clavable morcel-lator, comes in both 12 and 15 mm sizes, has a direct drive motor that produces a maximum speed of 1200 rpm, allows surgeons to use either the standard ergonomic grip or an optional 90° handle to increase ease of handling. Cutting blades can be changed intraoperatively, and a specially designed trocar sleeve protects tissue from unintentional blade contact. Rotocut’s integrated sealing cap maintains pneumoperitoneum, and its beveled-tip trocar cannula provides automated peeling of tissue. Contact Karl Storz, www.KarlStorz.com

The Minnesota Medical Development Rebound HRD (hernia repair device) is the only self-expanding Nitinol framed/surgical mesh device for laparoscopic repair of both inguinal and ventral hernias. The device is designed to fully unfurl after being folded into the supplied cannula and deployed through a 10 mm access port. Created to conform to the anatomy while providing stability and thus eliminating the need for anchoring, the Rebound HRD will be available in several shapes and sizes. Contact Minnesota Medical Development, www.2MDInc.com

Ethicon Endo-Surgery’s Echelon 60 Endopath Stapler provides a robust design for hemostasis in thin through tissue. Designed to deliver consistent staple formation and mechanical strength, the ECHELON 60 works with a wide range of cartridges, including white, blue, and green, as well as a new gold cartridge that is used primarily on thicker tissue compressible to 1.8 mm. All cartridges fit down a 12 mm trocar for small incisions and provide six rows of staples. The Echelon 60 is intended for transaction, resection and/or creation of anastomoses. It has application in multiple open or minimally invasive general, gynecologic, urologic, thoracic and pediatric surgical procedures. Contact Ethicon Endo-Surgery, www.EthiconEndo.com

Genicon’s All Digital Medical Video Camera promises high quality images with true-to-life color. Seven different presets allow the purchase of one camera for use in laparoscopic, arthroscopic, hysteroscopic, gastroscopic, urethrosopic, and sinuscopic procedures. The camera boasts the fastest shutter control in CCIR video technology, offers 800 lines of resolution, and is compatible with all scope sizes. Contact Genicon, www.GeniconEndo.com

LAPAROSCOPY TODAY
General Informatic Session—Electronic Medical Records, CPOE, HIPPA Compliance, and Evidence-Based Medicine

Presented by Gustavo Stringel, MD

Physicians have been slow to adopt communication technology (ICT), but it is transforming our world so rapidly that it is a must. All doctors’ offices have computers now and medical informatics, ie, the storage, retrieval, and optimal use of biomedical information, data and knowledge for problem solving and decision-making, affects every aspect of medical practice. Computerized robots now make rounds and dispense medicine; and radiographs can be reviewed at home, in wards, or any place with Internet access.

Evidence-based medicine, ie, treating a patient by using the best evidence available, has replaced past medical decisions based on clinical experience, guessing, folklore, tradition, nonscientific clinic observations, and the art of medicine. The American Cancer Society developed the first clinical guidelines for cancer-related check-ups. Currently, most medical societies offer clinical guidelines. Critics of guidelines fear that they will lead to “cookbook medicine,” which will limit innovation and treatment based on clinical experience.

Computerized physician order entry (CPOE) will help eliminate medical errors that result in patient deaths. However, to date, only 4% to 10% of US hospitals have implemented CPOE. Many state legislatures have adopted legislation to implement CPOE; however, physicians must take ownership of the CPOE project for it to work. The Kassembaum-Kennedy Act of 1996 also known as the Health Insurance Portability and Accountability Act (HIPAA) was originally intended to streamline administrative processes and improve health information security. New Federal regulations have resulted because of HIPPA, and failure to comply with HIPPA can result in civil and criminal penalties.

Electronic Medical Records (EMR) is of growing importance among physician groups. Benefits include easy viewing; accurate, easy prescription and test ordering and messaging; improved quality and efficiency; patient-directed functionality and billing, which can yield financial benefits through more complete capture of services provided, more defensible Medicare coding at higher coding levels, and reductions in data-entry staff. Weaknesses of the system include high initial cost, uncertain financial benefits, high initial physician time investment, difficulties with technology, and problems with electronic data exchange.

JOURNAL WATCH: PROTO

Understanding Anesthesia. Slack C. Summer 2006:21-25 • With a 160 history and a fatal accident reduction rate that has dropped from 1 in 10,000 to 1 in 250,000 over the past 36 years, general anesthesia is routine. However, the exact mechanisms by which anesthesia works and the experience of the anesthetized person are not fully understood. In this article the author sheds some light on the subject through a discussion of anesthesia research.

JOURNAL WATCH: JSLS

Building a Laparoscopic Surgical Skills Training Laboratory: Resources and Support. Gould JC. 2006;10(3):293-296 • Through a survey of US general surgery residency programs, the authors found that skills laboratories that used a defined curriculum or were a part of shared programs have more resources. Significant variability in training practices and equipment utilized exists between skills laboratories, and a more efficient, standardized approach to skills training across residency programs is desirable.
### Events Presented by the Society of Laparoendoscopic Surgeons


**FEBRUARY 6-9, 2008** AsianAmerican MultiSpecialty Summit III Laparoscopy and Minimally Invasive Surgery. Hilton Hawaiian Village Beach Resort and Spa. Honolulu, Hawaii, USA

**SEPTEMBER 5-8, 2007** 16th International Congress and Endo Expo 2007. Hyatt Regency San Francisco. San Francisco, California, USA


For more information about these and other upcoming events, visit [www.laparoscopy.org](http://www.laparoscopy.org)

### NOVEMBER 2006

**9-10** Hands on Laparoscopy. American Urological Association Houston, Texas, USA

**8-9** Advanced Minimally Invasive Operating Techniques in Gynecology. European Surgical Institute. Norderstedt, Germany

**8-10** Minimally Invasive Operating Techniques for Theatre Staff – Introduction and Perspectives. European Surgical Institute. Norderstedt, Germany

**12-16** 28th Congress of the Societe Internationale d’Urologie. Cape Town, South Africa

**17-19** Advanced Laparoscopy. American Urological Association. Baltimore, Maryland, USA

**27-30** Minimally Invasive Techniques in Visceral Surgery. European Surgical Institute. Norderstedt, Germany

### DECEMBER 2006

**1-2** Pelvic Anatomy and Laparoscopic Surgery for Gynecologic Oncologists. University of Louisville/AAGL. Louisville, Kentucky

**1-2** Fibroids in the 21st Century: Contemporary Diagnosis & Management. Innovations in Medical Education and Training. San Juan, Puerto Rico

**1-14** Advanced Laparoscopic Training for General Surgeons and Gynecologists. Laparoscopy Hospital. New Delhi, India

**4-6** Advanced Course in Gynecological Surgery. European Institute of Telesurgery. Strasbourg, France

**4-7** Minimally Invasive Operating Techniques in General Surgery. European Surgical Institute. Norderstedt, Germany

**7-8** ICUs of the Future. Active Communications International. San Diego, California

**8-9** Advanced Course in Pediatric Surgery. European Institute of Telesurgery. Strasbourg, France

**11-13** Endoscopic Surgery in Gynecology 2006: Diagnostic and Operative Hysteroscopy. Malzoni Centro di Endoscopia Ginecologica Avanzata. Avellino, Italy

**18-23** Animal Urologic Laparoscopy Training Course. Urology Centre of Coimbatore. Coimbatore, India

### JANUARY 2007

**1-14** Advanced Laparoscopic Training for General Surgeons and Gynecologists. Laparoscopy Hospital. New Delhi, India

### FEBRUARY 2007

**1-14** Advanced Laparoscopic Training for General Surgeons and Gynecologists. Cleveland Clinic Florida. Coral Gables, Florida, USA

**13-14** 2nd Congress of the International Society of Laparoscopic Colorectal Surgeons. Laparoscopy Hospital. New Delhi, India

### MARCH 2007

**1-3** 18th Video Urology World Congress. Video Urology Association & Singapore Urological Association. Singapore

**9-12** World Congress of the WIFAPS. Video World Federation of Associations of Pediatric Surgeons. Buenos Aires, Argentina

**23-24** Advanced Course in Colorectal Surgery. European Institute of Telesurgery. Strasbourg, France

### JOURNAL WATCH: JSLS

**Bedside Diagnostic Laparoscopy in the Intensive Care Unit: a 13-Year Experience.** Jaramillo EJ et al. 2006;10(2):153-159 • The authors conclude that bedside diagnostic laparoscopy in the intensive care unit is feasible, safe, and accurate in the assessment of intraabdominal issues in properly selected, critically ill patients.
This event in Orlando, Florida brings together delegations of leading laparoscopists from Europe and the Americas for a meaningful educational and cultural exchange between surgeons of different surgical specialties that practice minimally invasive surgery. Plan now to attend this special event at Disney’s Contemporary Resort, Orlando, Florida, USA.

February 21-24, 2007

Presented by:
The Society of Laparoendoscopic Surgeons
for information or to participate as a delegate or presenter go to:
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Dilem HallWatson, MD
Dilem HallWatson, MD
A UNIQUE EXCHANGE OF CULTURE AND EDUCATION

ORGANIZATIONS

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Agean Surgical Society  
Asociacion Latinoamericana de Cirujanos Endoscopistas - ALACE  
Asociatia Romana pentru Chirurgie Endoscopică (ARCE)  
Austrian Society for Minimally Invasive Surgery (AMIC)  
Catholic University of Sacred Heart, School of Medicine, Rome  
Croatian Society of Endoscopic Surgery (HDEK)  
Czech Society of Gynecological Endoscopy (CZSEG)  
Danish Surgical Society  
Endoscopic Committee of the Venezuela Surgical Society  
Endoscopy Society in Germany  
European Society of Gynecologic Endoscopy (ESGE)  
GECAS/IOM/UNFDP  
Greek Surgical Society  
Haram University School of Medicine  
International Society of Mammary Endoscopy (ISOME)  
Italian Society of Gynecologic Endoscopy (SEGI)  
Lap Club Italian Scientific Society  
Laso General Hospital, Athens Greece  
Masaryk Hospital  
Mediterranean Society for Reproductive Medicine (MSRM)  
New European Surgical Academy (NESA)  
Princess Royal University in London, UK  
Ruprecht Karls University, Heidelberg, Germany  
Turkish German Gynecological Association  
Turkish National Laparoscopy and Endoscopy Society  
University of Rome, Italy

REASONS TO ATTEND

- Experience a unique conference offering a multi-specialty approach to minimally invasive surgery.  
- Expand your knowledge of the use of laparoscopic diagnostic and treatment techniques taught by acknowledged leaders in their respective specialties and countries.  
- Topics are presented in general sessions providing a multidisciplinary approach to specialty minimally invasive surgical techniques and procedures.  
- Understand how different countries have met the challenges of training and practicing minimally invasive surgery.  
- Learn about the cultural differences and similarities between neighboring countries.

CONFERENCE OBJECTIVES

The objectives of this program are to provide attendees with:

- A multidisciplinary and multicultural exchange of information between surgeons representing their country or a professional organization on the challenges faced practicing and teaching minimally invasive surgeons.  
- A clearer concept of new and standard laparoscopic and endoscopic instrumentation and techniques and how they enhance the standards of patient care and education of minimally invasive surgeons.

CONFERENCE HOTEL / ACCOMMODATIONS

Disney’s Contemporary Resort®  
4600 North World Drive  
Orlando, Florida 32830  
Telephone: +1-407-824-3869  
Fax: +1-407-824-3738

Rising majestically between the shores of Bay Lake and Seven Seas Lagoon, Disney’s Contemporary Resort immerses you in a world of modern art and landmark architecture as sleek monorails silently glide through the center of the stunning atrium lobby.

You’ll enjoy the distinctive style of oversized guest rooms and suites, most with dramatic lakefront or Theme Park views, along with a marina, health club, tennis center and an expansive pool area.

For a truly memorable dining experience, the award-winning California Grill offers breathtaking views of Cinderella Castle from high atop the hotel. And, you’re just a short stroll or monorail ride away from all the sights and sounds of the Magic Kingdom® Park and Epcot®.

CALL NOW AND MAKE YOUR RESERVATIONS

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

Designation The SLS designates this educational activity for a maximum of 16.5 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

CONFERENCE FEES

SLS Members, Delegates & Organizing Committee – Register Online at www.SLS.org before December 21, 2006 and save an additional $100 on your conference registration!

<table>
<thead>
<tr>
<th>Membership Category</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td>Members</td>
<td>$395</td>
</tr>
<tr>
<td>Non-Members</td>
<td>$595</td>
</tr>
<tr>
<td>Delegates/Organizing Committee Members</td>
<td>$495</td>
</tr>
<tr>
<td>Resident/Nurse/Fellow</td>
<td>$395</td>
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</tbody>
</table>

**EuroAmerican Multispecialty Summit III / Program Agenda**

**WEDNESDAY, FEBRUARY 21, 2007**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>3:00 – 6:00pm</td>
<td>CONFERENCE REGISTRATION</td>
</tr>
<tr>
<td>6:00 – 7:00pm</td>
<td>OPENING CEREMONY AND WELCOME Delegation Introductions: Organizing Committee Chair[s], Cultural Presentations</td>
</tr>
<tr>
<td>7:00 – 8:00pm</td>
<td>WELCOME RECEPTION</td>
</tr>
</tbody>
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**THURSDAY, FEBRUARY 22, 2007**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 – 7:30am</td>
<td>CONTINENTAL BREAKFAST AND VISIT EXHIBITS</td>
</tr>
<tr>
<td>7:30 – 7:45am</td>
<td>OPENING REMARKS</td>
</tr>
<tr>
<td>7:45 – 8:30am</td>
<td>LAPAROSCOPY IN CANCER: The Role of Laparoscopy in the Management of Early and Advanced Ovarian Cancer; The Use of Laparoscopy in the Staging and Assessment of Gastrointestinal Cancer; Laparoscopic Low Rectal Resections with Intraoperative Radiotherapy; Preliminary Results</td>
</tr>
<tr>
<td>8:30 – 8:45am</td>
<td>Cultural Presentation: Ten Years of Laparoscopic Surgery in Turkey</td>
</tr>
<tr>
<td>8:45 – 9:30am</td>
<td>GYNECOLOGY: Joint Session with ESGE Laparoscopic Conservative Fibroid Surgery, Laparoscopic Procedures and Colpectomy in Surgical Treatment of Female-To-Male Transsexualism; Inflammatory and Stress Response After Laparoscopic Surgery Uterus Preserving; Comparison to Laparotomy</td>
</tr>
<tr>
<td>9:30 – 9:45am</td>
<td>Cultural Presentation: European Society of Gynecologic Endoscopy (ESGE)</td>
</tr>
<tr>
<td>9:45 – 10:30am</td>
<td>GENERAL SURGERY: Laparoscopic Thoracic Surgery; Implementation of Laparoscopic Colorectal Surgery in Denmark; Gastric Banding</td>
</tr>
<tr>
<td>10:30 – 10:45am</td>
<td>Cultural Presentation</td>
</tr>
<tr>
<td>10:45 – 11:00am</td>
<td>BREAK AND VISIT EXHIBITS</td>
</tr>
<tr>
<td>11:00 – 11:45am</td>
<td>HEPATOMOBILIARY: Hepatobiliary Surgery of the Liver and Alternative Laparoscopic Surgical Techniques; Minimally Invasive Treatment of Causes and Complications of Billary Pancreatitis; Laparoscopic Cholecystectomy</td>
</tr>
<tr>
<td>11:45 – 12:00pm</td>
<td>Cultural Presentation: ALACE 2008</td>
</tr>
<tr>
<td>12:00 – 12:30pm</td>
<td>INFERTILITY / FERTILITY: Value of Endoscopic Surgery in the Assessment of an Infertile; Reproductive Surgery Revisited Through Minimally Invasive Surgery</td>
</tr>
<tr>
<td>12:30 – 12:45pm</td>
<td>Cultural Presentation: France</td>
</tr>
<tr>
<td>12:45 – 1:30pm</td>
<td>MULTIDISCIPLINARY: Pelvic Surgical Environment of Laparoscopy; Odd Situations in Laparoscopic Surgery; Use of Fibrin Sealant in Abdominal Wall Repair Surgery</td>
</tr>
<tr>
<td>1:30 – 1:45pm</td>
<td>Cultural Presentation: Lawsuit in Minimally Invasive Surgery, The Australian Perspective</td>
</tr>
<tr>
<td>6:00 – 9:00pm</td>
<td>SPECIAL SIS Social Event at the Orlando Science Center featuring Our Body: The Universe Within, Surgical Top Gun, and Dinner with Faculty. (Visit <a href="http://www.laparoscopy.org">www.laparoscopy.org</a> for details.)</td>
</tr>
</tbody>
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**FRIDAY, FEBRUARY 23, 2007**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>7:00 – 7:30am</td>
<td>CONTINENTAL BREAKFAST AND VISIT EXHIBITS</td>
</tr>
<tr>
<td>7:30 – 8:15am</td>
<td>LAPAROSCOPY IN CANCER: Sentinel Node Procedure for Gynecological Malignancies; A Case Presentation of a Multidisciplinary Approach to a Patient with a Gastric Tumor; Breast Endoscopy: From Diagnostic to Interventional Breast Ductoscopy</td>
</tr>
<tr>
<td>8:15 – 8:30am</td>
<td>Cultural Presentation: Czech Republic: The Heart of Europe</td>
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<tr>
<td>8:30 – 9:15am</td>
<td>ENDOMETRIOSIS / OVARIAN: Endoscopic Assessment of Suspicious Adnexal Masses; Laparoscopy: The Gold Standard of Diagnosis and Therapy of Adnexal Torsion</td>
</tr>
<tr>
<td>9:15 – 9:30am</td>
<td>Cultural Presentation: Italy in Second Millennium</td>
</tr>
<tr>
<td>9:30 – 10:15am</td>
<td>GASTROINTESTINAL: Results of a Five Year Experience with Laparoscopic Nissen Fundoplication in the Treatment of Severe Gastroesophageal Reflux Disease; Current Status of Laparoscopic Antireflux Surgery; Treatment Options in Achalasia; to Dilate or not to Dilate; Laparoscopic Management of a Toothpick Perforation of the Ileum</td>
</tr>
<tr>
<td>10:15 – 10:30am</td>
<td>Cultural Presentation: What We, Greeks, Have Given to the World</td>
</tr>
<tr>
<td>10:30 – 10:45am</td>
<td>BREAK AND VISIT EXHIBITS</td>
</tr>
<tr>
<td>10:45 – 11:30am</td>
<td>ABDOMINAL AND PELVIC PAIN / ADHESIONS: Laparoscopy and Penetrating Abdominal Trauma; Adhesions, Can We Prevent or Attack Them? Surgical Endoscopic Retropitoneal Neurectomy - Surgical Treatment of Chronic Pain after Hernia Repair</td>
</tr>
<tr>
<td>11:30 – 11:45am</td>
<td>Cultural Presentation: Bavaria, the “Little Texas” of Germany</td>
</tr>
<tr>
<td>11:45 – 12:45pm</td>
<td>HYSTERECTOMY: Hysteroscopic Myomectomy: New Technique Experience; Daycase Laparoscopic Hysterecyotomy: Is it the Next Routine Approach to Hysterectomy? A New Simple Technique of Vaginal Hysterecyotomy for Non Prolapsed Uterus by a Needle Which Rotates in a Small Area; Laparoscopic Hysterecyotomy in Benign and Malignant Diseases</td>
</tr>
</tbody>
</table>

LAPAROSCOPY TODAY 31
12:45 – 1:00pm Cultural Presentation: The Medical School of Vienna at the Beginning of the 20th Century
1:00 – 1:45pm MULTIDISCIPLINARY: A Comparison of Biological and Synthetic Tissue Sealants and their Use in Laparoendoscopic Techniques, Laparoscopy and Accelerate Stay Programs; Diagnostic and Therapeutic Laparoscopy in the ICU

SADARAY, FEBRUARY 24, 2007

7:00 – 7:30am CONTINENTAL BREAKFAST
7:30 – 8:15am HERNIA: Open Bilayer Patch Utilizing Mini-Incision Approach vs. Laparoscopic Hernia Repair; Laparoscopic Incisional Hernia Repair: The Italian Experience; Laparoscopic Incisional Hernia Repair: Pros and Cons Compared to Open Hernia Repair
8:15 – 8:30am Cultural Presentation: City of Izmir
8:30 – 9:00am GENERAL SURGERY: Laparoscopic Adenectomy, Video Thoracoscopic Sympathectomy for Palmer Hyperhydrosis
9:00 – 9:15am Cultural Presentation: Culture in Turkey
9:15 – 10:00am HEPATO-BILIARY: Common Biliary Duct Lithiasis: Is it Useful to Check and Treat Before Laparoscopic Cholecystectomy? Laparoscopic Cholecystectomy/Routine Intraoperative Cholangiography; Drains in Laparoscopic Cholecystectomies, Why and Why Not?
10:00 – 10:15am Cultural Presentation: Medical Education and Research in Italy: Perspectives
10:15 – 10:30am BREAK
11:15 – 11:30am Cultural Presentation
11:30 – 12:15pm MULTIDISCIPLINARY: Laparoscopy and Benign Proliferative Disease; Laparoscopy in Geriatric Patients; Two and Three Tocars Laparoscopic Appendectomy
12:15 – 12:30pm Cultural Presentation
12:30 – 12:45pm Delegates Meeting

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