second most common cause of peritoneal proliferations and was found in less than 10% of all patients. A differentiation between these two conditions is essential as the treatment completely differs. There is no endosalpingiosis-related pain or -subfertility, therefore, overtreatment should be avoided.

282 Video Session 8—Pain Issues (3:05 PM — 3:12 PM)

A Novel Approach to Pelvic Congestion Syndrome

Miller CE, Cholkeri-Singh A. The Advanced Gynecologic Surgery Institute, Naperville, Illinois

Pelvic congestion syndrome is characterized by chronic pelvic pain worsened with prolonged standing, activity and intercourse. The incidence is up to 30% when no other cause of pain can be diagnosed. The etiology appears to be due to lack of valve function in the gonadal vein leading to reflux and dilatation. Surgical ligation of the gonadal veins has been associated with 75% improvement in pain. We present a novel approach in identifying the gonadal veins by utilizing a fluorescence-capable endoscope when injected with an FDA approved dye, called Indocynine Green. The advantages of this technique are demonstrated in this video.

283 Open Communications 17—Laparoscopy (3:20 PM — 3:25 PM)

Incidence and Risk Factors for Hernia Formation in Gynecologic Laparoscopy

Thomassee MS, Grimm B, Fulchiero E, Yunker A, Scheib SS. Division of Minimally Invasive Gynecology, Vanderbilt University Medical Center, Nashville, Tennessee

Study Objective: To determine hernia rates for various laparoscopic entry techniques and risk factors that promote post operative hernia formation.
Design: Retrospective chart review.
Setting: University medical center.
Patients: Females undergoing gynecologic surgery.
Intervention: Laparoscopy for any gynecologic indication via single incision (SILS), traditional, or robotic assistance.
Measurements and Main Results: Data from >400 of ~1500 charts have been reviewed. So far, there were 4 hernias in 432 laparoscopies, and there was no significant difference among type of laparoscopic entry. The robotic group encompassed a higher rate of patients with diabetes and pulmonary disease, although these did not affect hernia formation. Smoking status, prior hernia, and previous pelvic surgery did not differ between the 3 groups. Average fascial entry length at the site of hernia was 14.8 mm (+3.8) and all were $\geq$12 mm. Average time to hernia diagnosis was 0.8 months (range 0.1-2.7). In a subset, we compared the incidence of hernias in SILS patients whose fascia was closed with Vicryl versus PDS. Incidence was 1.6% in the Vicryl group and there were no hernias in the PDS group.
Conclusion: We hypothesized that SILS would have a higher incidence of hernia formation, however, the data suggests that hernia rates are equivalent in the 3 groups. Fascial incisions $\geq$12 mm have a higher risk of hernia formation. All hernia sites were initially closed with Vicryl suture. We have since changed our practice for fascial closure during SILS to incorporate that of a delayed absorbable suture. Following this modification, we have not observed any incisional hernias in the SILS group. We recommend that consideration be given to incorporating delayed absorbable suture into fascial closure when a patient has known risk factors for hernia formation or a fascial incision $\geq$12 mm.

284 Open Communications 17—Laparoscopy (3:26 PM — 3:31 PM)

Ultrasonographically Calculated Uterine Volume as a Predictor for Surgical Outcomes in Total Laparoscopic Hysterectomy

Dassel MW,[1] O'Hanlan K,[2] Shwayder J.[1] [1]Minimally Invasive Gynecologic Surgery, University of Louisville, Louisville, Kentucky; [2]Gynecologic Oncology, Offices of Kate O'Hanlan, Portola Valley, California

Study Objective: To examine the predictive value of ultrasonographically-measured uterine volumes on surgical outcomes in total laparoscopic hysterectomy (TLH). We anticipate this data to be helpful in determining whether medical debulking of large uteri prior to TLH could be beneficial in improving surgical outcomes.
Design: This study is a retrospective exploratory study analyzing surgical outcomes following TLH performed by a single surgeon over a 14 year period. Data collected were demographics, ultrasonographically-measured uterine volumes, and surgical outcomes (operative time, estimated blood loss, length of hospital stay and post-operative uterine mass). Uterine volumes were calculated using the prolate ellipsoid formula.
Setting: Surgeries were performed in 4 San Francisco-area hospitals by the senior author (KO) between September 5, 1996 and August 30, 2010.
Patients: Patients were included that underwent pre-operative vaginal ultrasound and TLH between 9/5/1996 and 8/30/2010. Patients were excluded if they underwent certain concomitant procedures, or malignancy was a pre or post-surgical diagnosis.
Intervention: Retrospective chart review.
Measurements and Main Results: Median patient age was significantly, but not clinically different among groups stratified by uterine volume with median range 46-51 years ($p < .001$). Median BMI (26.0, range 16-74) and parity (1, range 0-9) were not statistically different among groups. As uterine volume increased from (>250 to >1500 cm^3), both median operative time (105 to 174.5 minutes) and median estimated blood loss (50 to 200 mL) increased. Median blood loss remained at 200 mL on uteri with volumes >500 cm^3. Median length of hospital stay was similar among groups (1, range 1-13). Spearman correlation between ultrasonographically-measured uterine volume and uterine mass was 0.88 ($p < 0.001$).

Effects of Uterine Volume on Operative Outcomes

Uterine Volume (mm^3)	Number of Patients	Operative Time (minutes)	Estimated Blood Loss (mL)	Hospital Stay (days)
<250	1087	105 (26-410)	50 (0-2100)	1 (1-13)
250-499	171	127 (48-321)	100 (0-2000)	1 (1-6)
500-999	102	149 (51-341)	200 (25-2000)	1 (1-4)
1000-1499	30	164 (80-270)	200 (50-1500)	1 (1-3)
>1500	20	175 (74-273)	200 (5-1000)	1 (1-12)

Conclusion: Increasing ultrasonograpically-measured uterine volumes correlated with post-operative uterine mass and predicted increasing operative times and estimated blood loss in TLH. Length of hospital stay was unaffected. These data suggest that pre-operative ultrasound measurements may be beneficial in surgical planning of TLH.

285 Open Communications 17—Laparoscopy (3:32 PM — 3:37 PM)

Cost Savings of Using Laparoscope for Cystoscopy Following Hysterectomy

Stanley CJ. Minimally Invasive Gynecologic Surgery, Florida Hospital Waterman, Tavares, Florida

Study Objective: To evaluate the cost savings associated with the use of a laparoscope compared to standard cystoscopy when inspecting the bladder following laparoscopic hysterectomy.
Design: Retrospective review; 50 patients undergoing laparoscopic hysterectomy, either total or supracervical, were compared to 50 patients undergoing cystoscopy for various indications. Using cost data from our hospital, a comparison was made as to the cost of using the laparoscope, a device already opened and utilized from the beginning of the case, with the use of a cystoscopy set.
Setting: Community based suburban hospital.
Patients: 50 patients undergoing laparoscopic hysterectomy for benign conditions with author as primary or co-surgeon. Controls where 50 patients who underwent cystoscopy for various indications.
Intervention: Universal cystoscopy is policy at our hospital following all hysterectomies. Following the closure of the vaginal cuff or removal of morcellated specimen, the bladder was retrofilled with 300 cc of normal saline