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Conclusion. Duration of CO_2 pneumoperitoneum is an independent stimulus variable for induction of adhesions.

Laparoscopic Pelvic Lymphadenectomy and Vaginal Radical Hysterectomy for the Treatment of Early Cervical Cancer

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Objective. To assess the feasibility of pelvic laparoscopic lymphadenectomy and its efficacy in association with vaginal radical hysterectomy in women with histologic diagnosis of cervical cancer.
Measurements and Main Results. In a 2-year period 23 women (age 30–58 yrs) with cervical cancer were selected to undergo laparoscopic lymphadenectomy with dissection of the common iliac, hypogastric, and external iliac vessels and obturator nerve, followed by vaginal radical hysterectomy (Amreich III). All surgeries were uneventful; average number of lymph nodes sampled was 14 (range 12–24 nodes). Mean time for lymphadenectomy was 60 minutes (range 50–90 min) and for vaginal radical hysterectomy 60 minutes (range 45–90 min). At histologic examination all nodes were free of metastases.
Conclusion. It seems that laparoscopic lymphadenectomy may play an important role in reviving radical vaginal hysterectomy for women with cervical cancer. This may be the treatment of choice in women with early disease, as it avoids an abdominal incision, thus resulting in minimal discomfort for the patient with short hospital stay and quick recovery.

Ovarian Preservation at Hysterectomy for Endometriosis

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Objective. To review all hysterectomies performed at Columbia Presbyterian Medical Center between 1985 and 1995.
Measurements and Main Results. One hundred four women underwent laparoscopic hysterectomy for pelvic pain due to advanced-stage endometriosis with preservation of at least one ovary. The majority of women had significant to total relief of pelvic pain over average follow-up of 48 months.
Conclusion. This series suggests that ovarian preservation at the time of hysterectomy should be considered in women with endometriosis.

Laparoscopic Burch-Ball Repair for Genuine Stress Incontinence Secondary to Hypermobile Low Pressure Urethra

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Objective. To assess the effectiveness of the Burch-Ball bladder repair in treating urinary incontinence with bladder neck hypermobility and low pressure urethra.
Measurements and Main Results. In this prospective study, 17 women (age 44–73 yrs) with proved hypermobile low-pressure urethra and complaints of severe stress incontinence underwent laparoscopic Burch-Ball repair and other laparoscopic pelvic support procedures as necessary. There were two cystotomies and one case of cystitis. All patients voided spontaneously and were discharged in less than 24 hours. At repeat evaluations at 1 and 2 years, including urodynamics and ultrasound, objective cure rates were 93% and 87%. Cured women had significant improvement in pressure transmission ratios and urethral stability. Urethral closure pressures were higher, but not significantly.
Conclusion. Laparoscopic Burch-Ball technique has similar cure rates as laparotomy procedures.

The Impact of Laparoscopic Hysterectomy on Rate of Abdominal and Vaginal Hysterectomy

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Objective. To evaluate the effect of laparoscopic hysterectomy in converting abdominal to vaginal hysterectomy.
Measurements and Main Results. In a retrospective study, 1266 cases of three types of hysterectomies performed between January 1, 1991, and December 31, 1996, were reviewed. In the first 2 years before laparoscopic hysterectomy was introduced, 343 hysterectomies were performed, 224 (65.3%) abdominal and 119 (34.7%) vaginal. In later 4 years 923 hysterectomies were performed, of which 460 (49.8%) were abdominal, 301 (32.6%) were vaginal, and 162 (17.6%) were laparoscopic. Rates of laparoscopic hysterectomy in last 3 years (1994–1996) were 27%, 15%, and 18%.

Conclusion. In this group of providers the practice of laparoscopic hysterectomy resulted in reduction of AHs by 23.7% without changing the rate of VHs.

Uterine Thermal Balloon Endometrial Ablation

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Objective. To gather long-term data on patients treated for menorrhagia with ThermaChoice thermal balloon endometrial ablation.
Measurements and Main Results. A prospective, observational study was conducted at 22 multinational clinical sites. More than 500 women (mean age 41 yrs) with menorrhagia unresponsive to medical therapy were treated under various protocols. Patients underwent uterine balloon therapy with a 4.5-mm diameter catheter, most without cervical dilatation, and one-third under local anesthesia with or without intravenous sedation. Treatment times ranged from 4 to 16 minutes (mean 8.3 min) and balloon starting pressures from 61 to 200 mm Hg (mean 162 mm Hg). No intraoperative complications occurred. Balloon starting pressures below 150 mm Hg and treatment times less than 8 minutes made the procedure considerably less effective. Even without excluding these patients, an average 70% decrease in menstrual flow was reported. Average length of follow-up for all patients was 10.3 months, and results were remarkably consistent from 6 to 24 months after treatment. Of the over 400 women treated with 8-minute therapy at starting pressure of 150 mm Hg or greater, 87% reported a return to normal menses or less and almost 30% had either amenorrhea or spotting at last follow-up.
Conclusion. Uterine balloon therapy was easy to administer and resulted in excellent success rates.

Expression of IgFI and Its Receptor in Eutopic and Ectopic Endometrium of Women with Endometriosis

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Objective. To investigate the role of IgF1 and its receptor in human endometrium, and their role in the paracrine-autocrine regulation of eutopic and ectopic endometrial cell growth.
Measurements and Main Results. Tissue specimens of eutopic and ectopic endometrium were obtained from 10 women with endometriosis who underwent operative laparoscopy for stage 3 to 4 endometriosis, and from 15 healthy women. The indirect avidin-biotin complex immunoperoxidase assay was performed on rehydrated 4-mm-thick sections of 10% formalin-fixed, paraffin-embedded tissue. Anti IgF1 and anti IgF-receptor monoclonal primary antibodies with a dilution 1:50 phosphate-buffer solution were used. Immunoenzymatic staining was developed using 1.7M3.31 beaminobenzidine and 0.03% hydrogen peroxidase. Immunohistochemical analysis for IgF1 and IgF1 receptor in controls and in eutopic endometrium of patients with endometriosis showed strong immunostaining in epithelial and stromal cells during the proliferative phase, whereas during the secretory phase eutopic endometrium showed low or negative immunostaining for both antigens in both epithelial and stromal cells. Positive staining for IgF1 and IgF1 receptor was found in most cases in endometrial epithelial cells of ovarian cysts and in peritoneal adhesions, during both proliferative and secretory phases.
Conclusion. Various patterns of expression of IgF1 and its receptor in endometrium and in endometriotic lesions suggest that different lesions present different cellular populations with different cell growth and maturation characteristics, which may account for different clinical aspects of the disease.

Laparoscopic Vault Suspension and Pelvic Floor Reconstruction

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Objective. To duplicate laparoscopically our technique to perform colposacropexy and repair pelvic floor defects.
Measurements and Main Results. Thirty-eight women underwent laparoscopic colposacropexy in which Gore-Tex graft material was sutured to the vaginal cuff and "tacked" to the sacral promontory. The retrorectal space was developed along with pararectal and paravesical spaces with the argon beam coagulator (ABC). All suturing was performed using an Endostitch device. Bladder suspensions were not done in this group of patients at the time of primary surgery. All 38 patients successfully underwent colposacropexy. Average operating time was 120 minutes (range 45–150 min). Average hospital stay was 1.5 days (range 0.5–3 days). Three patients developed postoperative stress incontinence requiring