FORUM
Paul E. Lacy.
Pincock S
Lancet 2005 Mar 16;365(9464):1024.

Nanoscience, nanotoxicology, and the need to think small.
Seaton A, Donaldson K
Lancet 2005 Mar 12;365(9463):923-4.

1 – THE PELVIC FLOOR

The now and the not yet of pelvic floor dysfunction.
Whiteside JL
Int Urogynecol J Pelvic Floor Dysfunct 2004 Nov-Dec;15(6):367-8. Epub 2004 Sep 22.

Pelvic floor surgery in the older woman: enhanced compared with usual preoperative assessment.
Richter HE, Redden DT, Duxbury AS, Granieri EC, Halli AD, Goode PS
Obstet Gynecol 2005 Apr;105(4):800-7.
OBJECTIVE: To examine whether knowledge of deficits obtained in a preoperative geriatric assessment may benefit postoperative health outcomes in older women undergoing pelvic surgery. METHODS: This study employed a pre-post intervention cohort design. Primary outcome was difference in scores of the Physical Component Summary and Mental Component Summary of the Medical Outcomes Study Short Form 36 Health Survey in 62 older women who had undergone "usual" compared with an "enhanced" preoperative assessment consisting of Activities of Daily Living, Instrumental Activities of Daily Living, Get Up and Go Test, Draw a Clock Test, Mini Nutritional Assessment, Geriatric Depression Scale, and Social Support Scale. The assessment results were placed on the participant's hospital chart. Repeated measures analysis was used. RESULTS: There were no significant differences in Mental Component Summary scores between the usual and enhanced assessment cohorts preoperatively (mean +/- standard deviation; 49.14 +/- 10.61 compared with 53.2 +/- 9.33), at 6 weeks (53.69 +/- 8.61 compared with 55.47 +/- 9.46), or at 6 months postoperatively (53.85 +/- 10.77 compared with 56.25 +/- 7.25); P = .120 for group effect and P = .798 for group by time interaction. Significant time effect was noted (P = .036). There was no significant difference in Physical Component Summary scores between the usual and enhanced assessment cohorts with respect to group effect (P = .986); there was a significant time effect (P = < .001) and a significant group by time interaction (P = .026). Satisfaction with treatment was high in both cohorts at 6 weeks and 6 months. CONCLUSION: A preoperative geriatric assessment did not seem to have differential benefit in healthy older women undergoing elective pelvic floor surgery. LEVEL OF EVIDENCE: II-2.

2 – FUNCTIONAL ANATOMY

Anatomical study of the pudendal nerve adjacent to the sacrospinous ligament.
Mahakkanukrauh P, Surin P, Vaidhayakarn P
Clin Anat 2005 Apr;18(3):200-5.
The pudendal nerve (S3-S5) is a major branch of the sacral plexus. After branching from the sacral plexus, the pudendal nerve travels through three main regions: the gluteal region, the pudendal canal, and the perineum. In the gluteal region, the pudendal nerve lies posterior to the sacrospinous ligament. The relationship of the pudendal nerve to the sacrospinous ligament has important clinical ramifications, but there is a lack of literature examining the variations in pudendal nerve anatomy in the gluteal region. This study investigates the pudendal nerve trunking in relation to the sacrospinous ligament in 37 cadavers (73 sides of pelves) of 21 males and 16 females, ranging from 18-83 years of age. Pudendal nerve trunking could be grouped into five types: Type I is defined as one-trunked (41/73; 56.2%), Type II is two-trunked (8/73; 11%), Type III is two-trunked with one trunk as an inferior rectal nerve piercing through the sacrospinous ligament (8/73; 11%), Type IV is two-trunked with one as an inferior rectal nerve not piercing through the sacrospinous ligament (7/73; 9.5%), and Type V is three-trunked (9/73; 12.3%). In summary, 56.2% of pudendal nerves adjacent to the sacrospinous ligament were one-trunked, 31.5% were two-trunked and 12.3% were three-trunked. Fifteen inferior rectal nerves originated independently from the S4 root and never joined the main pudendal nerve. Eight of fifteen inferior rectal nerves pierced through the sacrospinous ligament, perhaps making it prone for entrapment. We measured the average diameter of the main trunk of the pudendal nerve to be 4.67 +/- 1.17 mm. We also measured the average length of the pudendal nerve trunks before terminal branching to be 25.14 +/- 10.29 mm. There was no significant statistical difference in the average length, average diameter, number of trunks, and pudendal nerve variations between male and

female or right or left sides of the pelves. A detailed study of pudendal nerve trunking in relationship to the sacrospinous ligament would be useful for instruction in basic anatomy courses and in relevant clinical settings as well. Clin. Anat. 18:200-205, 2005. (c) 2005 Wiley-Liss, Inc.

Development of a 3-Dimensional Physiological Model of the Internal Anal Sphincter Bioengineered in-vitro from Isolated Smooth Muscle Cells.
Hecker L, Baar K, Dennis RG, Bitar KN
Am J Physiol Gastrointest Liver Physiol 2005 Mar 17;.
Background: Fecal incontinence affects people of all ages and social backgrounds and can have devastating psychological and economic consequences. This disorder is largely attributed to decreased mechanical efficiency of the internal anal sphincter (IAS), yet little is known about the pathophysiological mechanisms responsible for the malfunction of sphincteric smooth muscle at the cellular level. Objective: To develop a 3-Dimensional Physiological Model of the IAS Bioengineered in-vitro from Isolated Smooth Muscle Cells. Methods: Smooth muscle cells isolated from the IAS of rabbits were seeded in culture on top of a loose fibrin gel, where they migrated and self-assembled in circumferential alignment. As the cells proliferated, the fibrin gel contracted around a 5mm diameter SYLGARD mold, resulting in a 3-D cylindrical ring of sphincteric tissue. Results: 1) The bioengineered IAS rings generated a spontaneous basal tone. 2) Stimulation with 8-br-cAMP caused a sustained decrease in the basal tone (relaxation), which was calcium-independent. 3) Upon stimulation with acetylcholine, bioengineered IAS rings showed a calcium and concentration-dependent peak contraction at 30 seconds, which was sustained for 4 minutes. 4) Addition of 8-br-cAMP-induced rapid relaxation of acetylcholine-induced contraction and force generation of IAS rings. 5) Lastly, bioengineered sphincter rings show striking functional differences when compared to bioengineered rings made from isolated colonic smooth muscle cells. Conclusions: This is the first report of a 3-D in-vitro model of a gastrointestinal smooth muscle IAS. Bioengineered IAS rings demonstrate physiological functionality and may be used in the elucidation of the mechanisms causing sphincter malfunction.

3 – DIAGNOSTICS

Pelvic floor muscle strength and thickness in continent and incontinent nulliparous pregnant women.
Morkved S, Salvesen KA, Bo K, Eik-Nes S
Int Urogynecol J Pelvic Floor Dysfunct 2004 Nov-Dec;15(6):384-9; discussion 390. Epub 2004 Jul 3.
The aim of the study was to measure pelvic floor muscle function in continent and incontinent nulliparous pregnant women. The study group consisted of 103 nulliparous pregnant women at 20 weeks of pregnancy. Women reporting urinary incontinence once per week or more during the previous month were classified as incontinent. Function was measured by vaginal squeeze pressure (muscle strength) and increment in thickness of the superficial pelvic floor muscles (urogenital diaphragm) assessed by perineal ultrasound. Seventy-one women were classified as continent and 32 women as incontinent. Continent women had statistically significantly higher maximal vaginal squeeze pressure and increment in muscle thickness when compared with incontinent women. There was a strong correlation between measurements of vaginal squeeze pressure and perineal ultrasound measurements of increment in muscle thickness. This study demonstrates statistically significant differences in pelvic floor muscle function measured by strength and thickness in continent compared with incontinent nulliparous pregnant women.

Assessment of pelvic floor movement using transabdominal and transperineal ultrasound.
Thompson JA, O'sullivan PB, Briffa K, Neumann P, Court S
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar 22;.
The aims of the study were (1) to assess the reliability of transabdominal (TA) and transperineal (TP) ultrasound during a pelvic floor muscle (PFM) contraction and Valsalva manoeuvre and (2) to compare TA ultrasound with TP ultrasound for predicting the direction and magnitude of bladder neck movement in a mixed subject population. A qualified sonographer assessed 120 women using both TA and TP ultrasound. Ten women were tested on two occasions for reliability. The reliability during PFM was excellent for both methods. TP ultrasound was more reliable than TA ultrasound during Valsalva. The percentage agreement between TA and TP ultrasound for assessing the direction of movement was 85% during PFM contraction, 100% during Valsalva. There were significant correlations between the magnitude of the measurements taken using TA and TP ultrasound and significant correlations with PFM strength assessed by digital palpation.

Effect of acute acoustic stress on anorectal function sensation in healthy human.
Gonlachanvit S, Rhee J, Sun WM, Chey WD
Neurogastroenterol Motil 2005 Apr;17(2):222-8.

Little is known about the effects of acute acoustic stress on anorectal function. To determine the effects of acute acoustic stress on anorectal function and sensation in healthy volunteers. Ten healthy volunteers (7 M, 3 F, mean age 34 +/- 3 years) underwent anorectal manometry, testing of rectal compliance and sensation using a barostat with and without acute noise stress on separate days. Rectal perception was assessed using an ascending method of limits protocol and a 5-point Likert scale. Arousal and anxiety status were evaluated using a visual analogue scale. Acoustic stress significantly increased anxiety score ($P < 0.05$). Rectal compliance was significantly decreased with acoustic stress compared with control P ($P < 0.000001$). In addition, less intraballoon volume was needed to induce the sensation of severe urgency with acoustic stress ($P < 0.05$). Acoustic stress had no effect on hemodynamic parameters, anal sphincter pressure, threshold for first sensation, sensation of stool, or pain. Acute acoustic stimulation increased anxiety scores, decreased rectal compliance, and enhanced perception of severe urgency to balloon distention but did not affect anal sphincter pressure in healthy volunteers. These results may offer insight into the pathogenesis of stress-in-induced diarrhoea and faecal urgency.

Enterocele associated with rectocele revealed by dynamic pelvic CT.
Okamoto N, Maeda K, Kato R, Aoyama H, Hanai T, Sato H, Masumori K, Maruta M
Abdom Imaging 2005 Apr 7;.
Enterocele is often associated with other pelvic floor disorders but it is not always possible to detect by clinical examination. Defecography with peritoneography and/or barium meal intake has recently been developed as a new method to identify enterocele, but this method is an invasive procedure. Multislice computed tomography was performed at rest and during simulated defecation to evaluate an 80-year-old female patient who had a defecation disorder and was diagnosed as having rectocele based on results from defecography and clinical findings. Multiplanar reconstruction images were generated for image evaluation. Using this novel method of dynamic pelvic computed tomography, a third-degree enterocele was clearly demonstrated in this case.

Is a 2-liter PEG preparation useful before capsule endoscopy?
Ben-Soussan E, Savoye G, Antonietti M, Ramirez S, Ducrotte P, Lerebours E
J Clin Gastroenterol 2005 May-Jun;39(5):381-4.
AIMS:: Small bowel contents can sometimes hamper the quality of capsule images. Our aim was to investigate the effect of PEG administered prior to capsule endoscopy (CE) upon quality of images, gastrointestinal transit time, and detection rate of small bowel bleeding lesions in patients with obscure gastrointestinal bleeding. PATIENTS AND METHODS:: Forty-two consecutive patients were included. CE was performed following a 12-hour fasting period. The 16 first patients (Group A) received no preparation and the following 27 patients (Group B) received 2 L of PEG the night before. The quality of images was assessed at both in duodenojejunum and ileum level, using a scale including the presence of air bubbles, biliary secretion, and residue (1-4). RESULTS:: Quality of images were not different in Group A compared with Group B in the duodenojejunum and in the ileum. Gastric transit time tended to be shorter in Group A compared with Group B (25.5 vs. 45.7 minutes) ($P = 0.15$), whereas small bowel transit was not different between both groups (271 vs. 288 minutes). Total small bowel CE examination was complete in Group A and in 24 of 26 in Group B (not significant). Potential bleeding lesions were seen in 8 patients in Group A and 12 in Group B (not significant). CONCLUSION:: Our retrospective study suggests that 2 L PEG preparation seems able to improve neither the quality of CE images nor its diagnostic performance. Moreover, in our study, PEG tended to increase gastric emptying time and may constitute a limitation for small bowel complete examination.

Sedation-Free Colonoscopy.
Takahashi Y, Tanaka H, Kinjo M, Sakumoto K
Dis Colon Rectum 2005 Mar 10;.
PURPOSE: The administration of sedative drugs at colonoscopy has its drawbacks, such as increasing the rate of complications and the cost. There are a number of potential advantages to performing colonoscopy without sedation. The aim of this study is to evaluate patient tolerance and acceptance during sedation-free colonoscopy. METHODS: Pain during sedation-free colonoscopy was evaluated in consecutive series of 675 patients in a prospective manner from January 1, 2003, to February 18, 2004. We recorded the degree of patient pain during colonoscopy, willingness to undergo sedation-free colonoscopy in the future, the complication rate, and the intubation time. The assisting endoscopy nurses and patients independently assessed the pain level immediately after the procedure using a four-point pain scale (nil, mild, moderate, severe). RESULTS: Almost all colonoscopies (99.6 percent: 672/675) were successful. There were four complications related to colonoscopy (bleeding after polypectomy). Patients and nurses rated pain by a four-point pain scale as follows. For the patients: nil, 69.6 percent (470/675); mild, 28.0 percent (189/675); moderate, 2.2 percent (15/675); severe, 0.1 percent (1/675). For the nurses: nil, 76.1 percent (514/675);

mild, 22.7 percent (153/675); moderate, 0.9 percent (6/675); severe, 0.3 percent (2/675). Patients rarely suffered from severe pain during carefully performed colonoscopies. The pain level of almost all colonoscopies was acceptable by patients, with only six patients (1.0 percent) stating that they would never undergo a colonoscopy without sedation in the future because of unbearable pain. CONCLUSIONS: This study suggests that carefully performed sedation-free colonoscopy rarely causes complications and is well accepted by most patients. Sedation-free colonoscopy is more cost-effective, may be safer, and should be offered as an alternative to colonoscopy with sedation.

Hyponatremia and seizures after bowel preparation: report of three cases.
Frizelle FA, Colls BM
Dis Colon Rectum 2005 Feb;48(2):393-6.
Oral sodium phosphate and sodium picosulfates/magnesium citrate are commonly used to evacuate the colon and rectum before colonoscopy or colorectal surgery. These substances, however, are known to cause electrolyte abnormalities. Seizures caused by electrolyte abnormalities associated with bowel preparation have only rarely been reported. We report the cases of three patients with no prior history of seizures, who had their first seizure associated with hyponatremia following ingestion of sodium phosphate or sodium picosulfates/magnesium citrate combination. Care must be taken with patients with a low seizure threshold and those with possible chronic sodium depletion, such as patients on thiazide diuretics, who are undertaking bowel preparation with oral sodium phosphate or sodium picosulfates/magnesium citrate combination.

Digital rectal examination of sphincter pressures in chronic anal fissure is unreliable.
Jones OM, Ramalingam T, Lindsey I, Cunningham C, George BD, Mortensen NJ
Dis Colon Rectum 2005 Feb;48(2):349-52.
PURPOSE: Chronic anal fissure is said to be associated with internal sphincter hypertonia. However, an unknown proportion of fissures may be associated with normal or even low resting pressures and may subsequently be resistant to pharmacological treatments or at risk from surgical treatments, both of which aim to reduce sphincter hypertonia. This study investigated the ability of surgeons to detect low or normal pressure fissures by digital rectal examination. METHODS: Patients with chronic anal fissure were assessed prospectively. The results of anal manometry performed on these patients were compared with digital rectal assessment of sphincter tone undertaken by a surgeon blinded to the manometry results. RESULTS: Forty consecutive patients (21 male) with chronic anal fissure were studied. Twenty-two (55 percent) had normal maximum resting pressure and a further 3 (8 percent) had low pressures on anal manometry. On clinical assessment, only five (13 percent) patients were evaluated as having no anal hypertonia. Clinical assessment of anal tone correctly identified 14 of 15 patients with high manometric maximum resting pressure (sensitivity, 93 percent), yet detected only 4 of 25 patients with normal or low pressures (specificity, 16 percent). The positive predictive value of clinical assessment of anal tone was 40 percent and the negative predictive value, 80 percent. CONCLUSIONS: The incidence of patients with chronic anal fissure without high manometric maximum resting pressure is higher than previously reported. The ability of surgeons to identify this group clinically was poor. It is reasonable to treat all patients primarily medically, and then selectively investigate by manometry those patients who fail medical therapy before considering lateral sphincterotomy.

Magnetic Resonance Imaging of the Rectum During Distension.
Dal Lago A, Minetti AE, Biondetti P, Corsetti M, Basilisco G
Dis Colon Rectum 2005 Mar 24;.
PURPOSE: A knowledge of the relationships between the rectum and its surrounding structures during distention may improve our understanding of the results of studies assessing rectal sensory-motor responses to distention. This magnetic resonance imaging study was designed to assess the shape of the rectum and the degree of distention at which the surrounding structures are compressed. METHODS: Nine healthy patients underwent magnetic resonance imaging of the rectum under resting conditions and after the inflation of a plastic bag to volumes of 50, 100, 150, 200, and 250 ml. The thickness of the rectovesical space was assessed as a measure of the compression of the perirectal structures, and the perception of sensations were recorded. RESULTS: The shape of the rectum changed from being quasicylindrical at distention volumes of <100 ml to bean-shaped at larger volumes. The thickness of the rectovesical space at a distention volume of 50 ml was the same as when the bag was not inflated, but it progressively decreased until the difference became statistically significant at distention volumes of >/=200 ml, corresponding to a mean +/- standard deviation rectal radius of 2.66 +/- 0.37 cm. Statistically significant compression of the rectovesical space was recorded when the sensations of gas, desire to defecate, and urgency were perceived. CONCLUSIONS: The shape of the rectum changes during distention; it significantly compresses

the extrarectal structures in the tested range of distention that induces nonpainful sensations. Magnetic resonance imaging is a useful means of assessing the morphologic changes in the rectum during distention.

4 – PROLAPSES

The role of the nurse in the use of vaginal pessaries to treat pelvic organ prolapse and/or urinary incontinence: a literature review.

McIntosh L

Urol Nurs 2005 Feb;25(1):41-8.

The available literature between 1990 and 2004 was reviewed to determine if the nurse's role in the use of vaginal pessaries to treat pelvic organ prolapse and/or urinary incontinence is well defined. Forty-five articles were reviewed, including one written by a physician's assistant, two written by both a physician and a registered nurse, seven written by registered nurses, 34 written by physicians, and one unpublished manuscript. Nurses could make a valuable contribution to the bank of information available on the use of vaginal pessaries to treat stress urinary incontinence and pelvic organ prolapse.

Paravaginal defects: prevalence and accuracy of preoperative detection.

Segal JL, Vassallo BJ, Kleeman SD, Silva WA, Karram MM

Int Urogynecol J Pelvic Floor Dysfunct 2004 Nov-Dec;15(6):378-83; discussion 383. Epub 2004 Jul 1.

The objective of this study was to determine the prevalence of paravaginal defects and to report the correlation between diagnosing a paravaginal defect preoperatively and observing the presence of one intraoperatively. This was a prospective study in which 77 patients with at least stage 2 prolapse of the anterior vaginal wall who desired surgical correction of their prolapse were assessed pre- and intraoperatively for the detection of a paravaginal defect. In order to differentiate a midline or central defect from a paravaginal defect, an index finger or ring forceps was placed vaginally toward each ischial spine separately. If the prolapse became reduced, the patient was clinically diagnosed with a paravaginal defect on that side. The intraoperative visualization or palpation of the pubocervical fascia detached from the arcus tendineus fasciae pelvis was used as the gold standard in diagnosing a paravaginal defect. The overall prevalence of a paravaginal defect in patients with at least stage 2 prolapse of the anterior vaginal wall was 37.7%. The sensitivities for detecting a left, right and bilateral paravaginal defect were 47.6, 40.0 and 23.5%, respectively, while the specificities for each side were 71.4, 67.3, and 80.0%, respectively. The overall prevalence of a paravaginal defect in patients with anterior vaginal wall prolapse is low. The standard clinical evaluation used to preoperatively detect a paravaginal defect in our hands is a poor predictor for the actual presence of a paravaginal defect.

Tension-free polypropylene mesh for vaginal repair of anterior vaginal wall prolapse.

de Tayrac R, Gervaise A, Chauveaud A, Fernandez H

J Reprod Med 2005 Feb;50(2):75-80.

OBJECTIVE: To study the ongoing results of the repair of anterior vaginal wall prolapse reinforced with tension-free polypropylene mesh (GyneMesh, Gynecare, Ethicon, Issy-Les-Moulineaux, France). STUDY DESIGN: A case series of 87 consecutive women with anterior vaginal wall prolapse who underwent a transvaginal procedure using polypropylene mesh between October 1999 and August 2002. The mean age (+/-SD) was 62.4+/-13.4 years. Before the operation, patients underwent physical examination staging of the prolapse with the International Pelvic Organ Prolapse staging system. Thirteen women had stage 2 anterior vaginal wall prolapse (14.9%), 59 had stage 3 (67.9%), and 15 had stage 4 (17.3%). The polypropylene mesh was placed from the retropubic space to the inferior part of the bladder in a tension-freefashion. Patients were followed for 9-43 months, with a median follow-up (+/-SD) of 24+/-9.6 months. We defined "cure" as satisfactory (stage 1) or optimal (stage 0) outcome for point Ba in the staging system. RESULTS: Eighty-four patients returned for follow-up (96.6%). At follow-up, 77 women were cured (91.6%), 5 women had asymptomatic stage 2 anterior vaginal wall prolapse, and 2 had a recurrent stage 3 (2.4%). There were no postoperative infections. There were a total of 7 vaginal erosions of the mesh (8.3%); 4 necessitated a second procedure for partial excision of the mesh. CONCLUSION: Vaginal repair of anterior vaginal wall prolapse reinforced with tension-free polypropylene mesh is effective and relatively safe. Vaginal erosion occurred in 8.3% of the study population but was easily manageable, with no sequelae.

Factors that affect recurrence after anterior colporrhaphy procedure reinforced with four-corner anchored polypropylene mesh.

Hung MJ, Liu FS, Shen PS, Chen GD, Lin LY, Ho ES

Int Urogynecol J Pelvic Floor Dysfunct 2004 Nov-Dec;15(6):399-406; discussion 406. Epub 2004 Jun 2.

The purpose of this study was to evaluate the effectiveness of the anterior colporrhaphy procedure reinforced with four-corner anchored polypropylene mesh in patients with severe (stage III or IV) anterior vaginal prolapse. Thirty-eight consecutive women were enlisted for this prospective study. The procedure consisted of an extensive vaginal dissection to join the vesicovaginal and retropubic space and an anchoring of a polypropylene mesh patch between the two Arcus Tendineus Fasciae Pelvis in a tension-free manner. The mean age of the study group was 63 (33-80) years. The success rate was 87% (33/38) at a mean

follow-up interval of 21 (12-29) months. A total of eight (100%) patients were also cured of concomitant stress incontinence (five overt and three occult type) with an additional tension-free vaginal tape (TVT) operation. During follow-up, there were five de-novo stress incontinence cases (16.7%) and four vaginal erosions of mesh (10.5%). Four clinical variables--diabetes mellitus, recurrent anterior vaginal prolapse, chronic cough and vaginal erosions of mesh--were found to have a significant correlation with an unsatisfactory surgical result with large values of hazard ratios found by survival analysis. We concluded that the anterior colporrhaphy procedure reinforced with four-corner anchored polypropylene mesh was effective for most, but failed in some patients who had specific risk factors within short convalescence periods. Concomitant stress incontinence can be successfully treated by a TVT operation in combination with the anterior colporrhaphy procedure reinforced with four-corner anchored polypropylene mesh. However, the anterior colporrhaphy procedure may itself have adverse effects on urethral sphincter function.

Sacral colpopexy using mersilene mesh in the treatment of vaginal vault prolapse.
Limb J, Wood K, Weinberger M, Miyazaki F, Aboseif S
World J Urol 2005 Feb;23(1):55-60. Epub 2004 Nov 11.
We report the efficacy and safety of abdominal sacral colpopexy using Mersilene mesh to treat vaginal vault prolapse. A total of 61 patients underwent sacral colpopexy to treat vaginal vault prolapse of whom 58 were available for evaluation. The procedure utilizes an abdominal approach to expose the vaginal vault and the anterior surface of the first and second sacral vertebrae. A Mersilene mesh is fastened to the anterior and posterior vaginal walls then anchored to the sacrum without tension. Hysterectomy and posterior colporrhaphy were performed as indicated. Concomitant anti-incontinence surgery was performed in 52 patients: 41 underwent Burch colposuspension, and 11 had pubovaginal sling placement. To assess long-term subjective and clinical efficacy, patients completed a questionnaire and underwent pelvic examination at least 1 year following surgery. The resolution of symptoms, objective restoration of normal pelvic support, and urinary continence defined surgical success. Median patient age at operation was 62 years. Previous operations included 29 hysterectomy procedures, five failed sacrospinous fixation, and 12 failed anti-incontinence procedures. The total complication rate was 15%. With a median follow-up of 26 months, complete correction of vaginal prolapse was found in 91% of patients. Vaginal symptoms were relieved in 90% of patients and 88% of patients had resolution of their urinary incontinence. Ninety percent of patients were satisfied with the surgery and would recommend it to others. Sacral colpopexy using Mersilene mesh relieves vaginal vault symptoms, restores vaginal function, and provides durable pelvic support.

Cadaveric prolapse repair with sling: intermediate outcomes with 6 months to 5 years of followup.
Frederick RW, Leach GE
J Urol 2005 Apr;173(4):1229-33.
PURPOSE: We present the prospective, intermediate-term results for cadaveric prolapse repair with sling as combined treatment of stress urinary incontinence and cystocele. MATERIALS AND METHODS: A total of 251 of 295 (85%) patients undergoing cadaveric prolapse repair with sling (CaPS) had at least 6 months of questionnaire and pelvic examination followup. All patients had objectively demonstrated stress urinary incontinence and grade 2 to 4 cystocele before surgery. Followup outcome measures included a validated subjective continence and patient satisfaction questionnaire, SEAPI (stress incontinence, emptying, anatomy, protection, inhibition) scores, pelvic examination for prolapse recurrence and complications, and quality of life scores. RESULTS: The overall patient reported subjective incontinence cured/dry rate (no incontinence episodes of any type) was 114 of 251 (45%), the cured/improved rate (50% improvement or greater) was 192 of 251 (76%) and the failed rate (less than 50% improvement) was 59 of 251 (24%). When considering stress urinary incontinence the cured/dry rate was 141 of 251 (56%), cured/improved rate was 207 of 251 (82%) and failed rate was 44 of 251 (17.5%), with 17 of the 44 (39%) cases having mixed urinary incontinence. Of the 59 failures 33 (56%) occurred after 12 months of followup. Of 153 patients 13 (8.5%) experienced de novo urge incontinence. The symptomatic cystocele recurrence rate was 18 of 251 (7%). There were statistically significant improvements in SEAPI and prolapse quality of life scores. Of 251 patients 200 (80%) were at least 50% satisfied and of 251 193 (77%) stated they would undergo the CaPS procedure again. CONCLUSIONS: With a maximum followup of 5 years in patients undergoing CaPS, we have seen excellent, durable cystocele repair results. While our subjective continence rates have decreased with an increasing number of late failures, we continue to observe significant improvement in SEAPI scores and quality of life with good patient satisfaction and low morbidity.

A new device for bone anchor fixation in laparoscopic sacrocolpopexy: The Franciscan laparoscopic bone anchor inserter.
van der Weiden RM, Withagen MI, Bergkamp AB, Mannaerts GH
Surg Endosc 2005 Mar 11;.
BACKGROUND: A laparoscopic modification of the sacrocolpopexy procedure with mesh and bone anchor

fixation with the Franciscan laparoscopic bone anchor inserter was developed. METHODS: We developed a laparoscopic bone anchor inserter for the placement of a titanium bone anchor in sacral segment 3 as fixation for the mesh in laparoscopic sacrocolpopexy procedures performed in women with posthysterectomy vault prolapse. RESULTS: Surgery successfully corrected vaginal vault prolapse. Laparoscopic bone anchor insertion with this new and simple device took 2 minutes and provided a firm anchor for mesh fixation. MRI demonstrated an anatomically preferable vaginal axis toward the hollow of the sacrum. CONCLUSION: Application of the newly developed Franciscan laparoscopic bone anchor inserter in laparoscopic sacrocolpopexy is an easy and safe procedure that provides firm fixation and excellent anatomical results.

Anatomical outcome and quality of life following posterior vaginal wall prolapse repair using collagen xenograft.
Altman D, Lopez A, Gustafsson C, Falconer C, Nordenstam J, Zetterstrom J
Int Urogynecol J Pelvic Floor Dysfunct 2005 Apr 5;.
The aim of this study was to evaluate quality of life, sexual function, and anatomical outcome after posterior vaginal wall prolapse repair using a collagen xenograft. Thirty-three patients were evaluated preoperatively and at 6 and 12 months follow-up (FU). Quality of life and sexual function were assessed using a self-reported questionnaire. Prolapse staging was performed using the pelvic organ prolapse quantification system (POPQ). Preoperatively 3 patients had stage I, 26 patients stage II, and 4 patients stage III prolapse of the posterior vaginal wall. Prolapse of the posterior vaginal wall >/= stage II was observed in 7 patients (21%) at the 6-month FU and in 13 patients (39%) at the 12-month FU. Mean point Bp was reduced from -1.1 preoperatively to -2.5 at 6 months FU ($p<0.01$) and -1.8 at 12 months FU ($p<0.01$). Previous abdominal surgery was associated with a less favorable anatomical outcome (odds ratio: 2.0, 95% confidence interval: 1.5-3.8). There were no significant changes in sexual function or dyspareunia during the 1-year FU. Preoperatively 76% of the patients reported a negative impact on quality of life as a result of genital prolapse. There was a significant improvement in several variables associated with quality of life at 6 and 12 months FU. Posterior vaginal wall prolapse repair using a collagen xenograft was associated with an unsatisfying anatomical outcome at 1-year FU although several quality of life-associated variables affecting psychosocial function were improved. Improvement was not restricted to postoperative restoration of vaginal topography, and previous surgery had a negative effect on anatomical outcome.

Posterior sling (infracoccygeal sacropexy): An alternative procedure for vaginal vault prolapse.
Sivaslioglu AA, Gelisen O, Dolen I, Dede H, Dilbaz S, Haberal A
Aust N Z J Obstet Gynaecol 2005 Apr;45(2):159-60.
Abstract This study of 30 patients evaluated the effectiveness and safety of the posterior sling (infracoccygeal sacropexy) in the surgical treatment of vaginal vault prolapse. The patients were reevaluated 3 months, 6 months and yearly postoperatively. Coexisting preoperative symptoms of pelvic pain, urgency, nocturia and 'obstructed' micturition feeling were followed-up. There was remarkable improvement in vault prolapse and in coexisting symptoms.

EXternal Pelvic REctal SuSpension (Express procedure) for rectal intussusception, with and without rectocele repair.
Williams NS, Dvorkin LS, Giordano P, Scott SM, Huang A, Frye JN, Allison ME, Lunniss PJ
Br J Surg 2005 Mar 18;.
BACKGROUND:: The results of conventional treatment for rectal intussusception and rectocele are unpredictable. The aim was to develop a less invasive surgical approach and to evaluate outcome in selected patients. METHODS:: Seventeen patients (13 women; median age 47 (range 20-67) years) with rectal evacuatory dysfunction and rectal intussusception, 13 of whom had a rectocele, were selected. The intussusception was corrected by external pelvic suspension of the rectum, using collagen strips attached to the rectal wall and pubis. The rectocele was repaired with a collagen patch. Patients were assessed before and 6 months after surgery by symptom and quality of life questionnaires, anorectal physiological investigation and proctography, and were followed up for a median of 12 months. RESULTS:: Sepsis requiring exploration occurred in two patients but there was no extrusion or need to remove the collagen. Of the 15 patients assessed after surgery, total symptom scores were significantly decreased ($P < 0.001$) and quality of life scores improved ($P < 0.001$). Proctographically, the degree of intussusception was improved in ten patients; six patients had normal postoperative proctograms. The rectocele was reduced in size in all patients, and was not demonstrable in eight. CONCLUSION:: An effective procedure for rectal intussusception and rectocele has been developed in a selected group of patients with marked evacuatory symptoms. Copyright (c) 2005 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd.

Intussusception in adults: an unusual and challenging condition for surgeons.
Erkan N, Haciyanli M, Yildirim M, Sayhan H, Vardar E, Polat AF

Int J Colorectal Dis 2005 Mar 10;.
BACKGROUND AND AIMS: Intestinal intussusception in adults is a rare entity and there is an ongoing controversy regarding the optimal management of this problem. The purpose of this study was to determine the causes and management of intussusception in adults. PATIENTS AND METHODS: A retrospective review of patients more than 18 years of age with a diagnosis of intestinal intussusception between January 1996 and December 2003 was conducted. Data related to presentation, diagnosis, treatment, and pathology were analyzed. FINDINGS: A total of 13 patients were operated on due to intestinal intussusception. There were 6 men and 7 women with a mean age of 45 years (range 24-61 years). Abdominal pain was the most common presenting complaint (100%). Eight (61.5%) patients presented with acute symptoms and underwent emergency laparotomy. The diagnosis of gastrointestinal intussusception was made preoperatively only in 4 (30.7%) patients by abdominal ultrasonography and computerized tomography. The lead point of intussusception was located in the small intestine in 10 (76.9%) patients, in the colon in 2 (15.4%), and in the ileocecal valve in 1 (7.7%). A pathologic cause for the intussusception was identified in 12 (92.3%) cases and 1 (7.7%) was idiopathic. Of the cases with a defined cause, 58% of the cases were benign and 42% were malignant. Forty percent of cases of small bowel intussusception and 33.3% of cases of colonic intussusception were due to malignant lesions. All cases of small intestinal intussusception were reduced and no perforation occurred. Segmental intestinal resection was performed in 9 patients and excision of the Meckel's diverticulum was made in 1. In cases of colonic intussusception, reduction was not attempted and en-bloc resection was carried out. No perforation or spillage of the contents of the intussusception was observed. There was no surgical mortality. CONCLUSION: Adult intussusception is an unusual and challenging condition that represents a preoperative diagnostic difficulty. We think that colonic intussusceptions should be resected in an en-bloc manner without reduction due to the risk of perforation and spillage of micro-organisms and malignant cells, whereas cases of small intestinal intussusception can be reduced without complications unless there is strangulation.

Rectal Intussusception: Characterization of Symptomatology.
Dvorkin LS, Knowles CH, Scott SM, Williams NS, Lunniss PJ
Dis Colon Rectum 2005 Mar 22;.
PURPOSE: Rectal intussusception is a common finding at evacuation proctography; however, its significance has been debated. This study was designed to characterize clinically and physiologically a large group of patients with rectal intussusception and test the hypothesis that certain symptoms are predictive of this finding on evacuation proctography. METHODS: A total of 896 patients underwent evacuation proctography from which three groups were identified: those with isolated rectal intussusception (n = 125), those with isolated rectocele (n = 100), and those with both abnormalities (n = 152). Multivariate analyses were used to identify symptoms predictive of findings by evacuation proctography. RESULTS: The symptoms of anorectal pain and prolapse were highly predictive of the finding of isolated intussusception over rectocele (odds ratio, 3.6, P = 0.006; odds ratio, 4.9, P < 0.001) or combined intussusception and rectocele (odds ratio, 2.9, P = 0.02; odds ratio, 2.4, P = 0.03). The symptom of "toilet revisiting" was associated with the finding of rectoanal intussusception (odds ratio, 3.55, P = 0.04). Although patients with mechanically obstructing intussuscepta evacuated slower and less completely (P < 0.001) than those with nonobstructing intussuscepta, no symptom was predictive of this finding on evacuation proctography. CONCLUSIONS: Although certain symptoms are predictive of the finding of rectal intussusception, there is a wide overlap with symptoms of rectocele, another common cause of evacuatory dysfunction. Furthermore, the observation that "obstruction to evacuation" made on proctography had no impact on the incidence of evacuatory symptoms suggests that beyond simply demonstrating the presence of an intussusception, analysis of proctography and subclassifying intussusception morphology seems of little clinical significance, and selection for surgical intervention on the basis of proctographic findings may be illogical.

Laparoscopically-Assisted Resection Rectopexy for Rectal Prolapse: Ten Years' Experience.
Ashari LH, Lumley JW, Stevenson AR, Stitz RW
Dis Colon Rectum 2005 Mar 22;.
PURPOSE: This study has been undertaken to audit a single-center experience with laparoscopically-assisted resection rectopexy for full-thickness rectal prolapse. The clinical outcomes and long-term results were evaluated. METHODS: The data were prospectively collected for the duration of the operation, time to passage of flatus postoperatively, hospital stay, morbidity, and mortality. For follow-up, patients received a questionnaire or were contacted. The data were divided into quartiles over the study period, and the differences in operating time and length of hospital stay were tested using the Kruskal-Wallis test. RESULTS: Between March 1992 and October 2003, a total of 117 patients underwent laparoscopic resection rectopexy for rectal prolapse. The median operating time during the first quartile (representing the early experience) was 180 minutes compared with 110 minutes for the fourth quartile (Kruskal-Wallis test for operating time = 35.523, 3 df, P < 0.0001). Overall morbidity was 9 percent (ten patients), with one death (<1

percent). One patient had a ureteric injury requiring conversion. One minor anastomotic leak occurred, necessitating laparoscopic evacuation of a pelvic abscess. Altogether, 77 patients were available for follow-up. The median follow-up was 62 months. Eighty percent of the patients reported alleviation of their symptoms after the operation. Sixty-nine percent of the constipated patients experienced an improvement in bowel frequency. No patient had new or worsening symptoms of constipation after surgery. Two (2.5 percent) patients had full-thickness rectal prolapse recurrence. Mucosal prolapse recurred in 14 (18 percent) patients. Anastomotic dilation was performed for stricture in five (4 percent) patients. CONCLUSIONS: Laparoscopically-assisted resection rectopexy for rectal prolapse provides a favorable functional outcome and low recurrence rate. Shorter operating time is achieved with experience. The minimally invasive technique benefits should be considered when offering rectal prolapse patients a transabdominal approach for repair, and emphasis should now be on advanced training in the laparoscopic approach.

Stapled Hemorrhoidopexy vs. Diathermy Excision for Fourth-Degree Hemorrhoids: A Randomized, Clinical Trial and Review of the Literature.
Ortiz H, Marzo J, Armendariz P, De Miguel M
Dis Colon Rectum 2005 Mar 22;.
PURPOSE: The aim of this prospective study was to compare the results of stapled hemorrhoidopexy with those of conventional diathermy excision for controlling symptoms in patients with fourth-degree hemorrhoids. METHODS: Thirty-one patients with symptomatic, prolapsed irreducible piles were randomized to either stapled hemorrhoidopexy (n = 15) or diathermy excision (n = 16). The primary outcome measure was the control of hemorrhoidal symptoms one year after operation. RESULTS: The two procedures were comparable in terms of pain relief and disappearance of bleeding. Recurrent prolapse starting from the fourth month after operation was confirmed in 8 of 15 patients in the stapled group and in none in the diathermy excision group: two-tailed Fisher's exact test P = 0.002, RR 0.33, 95 percent confidence interval 0.19-0.59). Five of these patients responded well to a later conventional diathermy hemorrhoidectomy. Persistence of itching was reported in six patients in the stapled group and in one of the diathermy excision group (P = 0.03). On the other hand, six patients in the stapled group and none in the diathermy excision group experienced tenesmus (P = 0.007). CONCLUSIONS: Stapled hemorrhoidopexy was not effective as a definitive cure for the symptoms of prolapse and itching in patients with fourth-degree hemorrhoids. Moreover, stapled hemorrhoidopexy induced the appearance of a new symptom, tenesmus, in 40 percent of the patients. Therefore conventional diathermy hemorrhoidectomy should continue to be recommended in patients with symptomatic, prolapsed, irreducible piles.

Laparoscopic or Transanal Repair of Rectocele? A Retrospective Matched Cohort Study.
Thornton MJ, Lam A, King DW
Dis Colon Rectum 2005 Mar 22;.
PURPOSE: The aim of the study was to analyze the functional and physiologic outcome of patients undergoing laparoscopic rectocele repair compared to a matched cohort undergoing transanal repair. METHODS: Forty patients with a rectocele who had undergone laparoscopic pelvic floor repair by a laparoscopic gynecologist were matched for age and rectocele size with 40 patients who had undergone a transanal repair by a colorectal surgeon. All patients had clinical evidence of a symptomatic rectocele. All patients were assessed postoperatively with a quality of life (SF-36) score, a modified St. Mark's continence score, a urinary dysfunction score, a Watt's sexual dysfunction score, and a linear analog patient satisfaction score. Fifteen patients in each group had also undergone preoperative and postoperative anal manometry. RESULTS: At 44 months median follow-up, the transanal approach resulted in significantly more patients reporting bowel symptom alleviation (P < 0.002) and higher patient satisfaction (P < 0.003). The bowel symptom improvement was also sustained over a significantly longer period (P < 0.03). Only 11 patients (28 percent) in the laparoscopic group reported more than 50 percent improvement in their bowel symptoms compared to 25 patients (63 percent) in the transanal group. On univariate analysis of 50 percent bowel symptom improvement, a larger rectocele (P < 0.009), transanal repair (P < 0.02), and presenting with obstructive defecation rather than fecal incontinence (P < 0.03) were statistically significant. Rectocele size (P < 0.012) and treatment cohort (P < 0.006) remained significant on multivariate analysis. Postoperatively, bowel symptom alleviation correlated with patient satisfaction in both groups (P < 0.015). Although not statistically significant, five patients (13 percent) in the transanal group developed postoperative fecal incontinence, which was associated with a low maximum anal resting pressure preoperatively that was further diminished postoperatively (P > 0.06). Only one patient (3 percent) in the laparoscopic group reported a decline in fecal continence, but four patients (10 percent) reported worsening of their symptoms of obstructed defecation. Postoperative dyspareunia was reported by 24 patients in total (30 percent), with significantly more in the transanal group (P > 0.05). CONCLUSIONS: The transanal repair results in a statistically greater alleviation of bowel symptoms and greater patient satisfaction scores. However, this approach may have a greater degree of functional co-morbidity than the laparoscopic rectocele repair.

Unusual complication of rectopexy with polypropylene mesh.
Singhal R, Tyagi SK, Nagar AM
Int J Colorectal Dis 2005 Mar 8;.

Long-Term Results of the Anterior Delorme's Operation in the Management of Symptomatic Rectocele.
Abbas SM, Bissett IP, Neill ME, Macmillan AK, Milne D, Parry BR
Dis Colon Rectum 2005 Feb;48(2):317-22.
PURPOSE: Although the results of surgery for symptomatic rectocele seem satisfactory initially, there is a trend toward deterioration with time. This study was designed to assess the long-term outcome of Anterior Delorme's operation for rectocele. METHODS: Questionnaires were sent to all females who had Anterior Delorme's operation performed in Auckland between 1990 and 2000. The questionnaires included obstructed defecation symptoms and a validated fecal incontinence severity index questionnaire and fecal incontinence quality of life questionnaire. Preoperative and postoperative obstructed defecation symptoms and incontinence score were compared. RESULTS: A total of 150 females (mean age, 56 (range, 30-83) years) who had an Anterior Delorme's operation for a rectocele were identified. One hundred seven patients (71.5 percent; mean age, 56 years) completed the questionnaire. Median follow-up was four (range, 2-11) years. The number of patients with obstructed defecation reduced from 87 preoperatively to 23 postoperatively using Rome II criteria ($P < 0.0001$). Postoperatively there was a reduction in the number of patients with each of the symptoms of obstructed defecation from 83 to 27 for straining, 87 to 33 for incomplete emptying, 64 to 14 for feeling of blockage, 41 to 10 for digitation ($P < 0.0001$ for all). The median incontinence score reduced from 20 of 61 preoperatively to 12 of 61 postoperatively ($P = 0.0001$). CONCLUSIONS: In patients with symptomatic rectocele, Anterior Delorme's operation provides long-term benefit for patients with obstructed defecation and leads to a significant improvement of incontinence scores.

Stapled Hemorrhoidopexy vs. Harmonic Scalpeltrade mark Hemorrhoidectomy: A Randomized Trial.
Chung CC, Cheung HY, Chan ES, Kwok SY, Li MK
Dis Colon Rectum 2005 Mar 24;.
PURPOSE: A randomized trial was undertaken to evaluate and compare stapled hemorrhoidopexy with excisional hemorrhoidectomy in which the Harmonic Scalpeltrade mark was used. METHODS: Patients with Grade III hemorrhoids who were employed during the trial period were recruited and randomized into two groups: (1) Harmonic Scalpeltrade mark hemorrhoidectomy, and (2) stapled hemorrhoidopexy. All operations were performed by a single surgeon. In the stapled group, the doughnut obtained was sent for histopathologic examination to determine whether smooth muscles were included in the specimen. Operative data and complications were recorded, and patients were followed up through a structured pro forma protocol. An independent assessor was assigned to obtain postoperative pain scores and satisfaction scores at six-month follow-up. Patients were also administered a simple questionnaire at follow-up to assess continence functions. RESULTS: Over a 20-month period, 88 patients were recruited. The two groups were matched for age and gender distribution. No significant difference was identified between the two groups in terms of operation time, blood loss, day of first bowel movement after surgery, and complication rates. Despite a similar parenteral and oral analgesic requirement, the stapled group had a significantly better pain score ($P = 0.002$); these patients also had a significantly shorter length of stay ($P = 0.02$), and on average resumed work nine days earlier than the group treated with the Harmonic Scalpeltrade mark (6.7 vs. 15.6, $P = 0.002$). Although 88 percent of doughnuts obtained in the stapled group contained some smooth muscle fibers, no association was found between smooth muscle incorporation and postoperative continence function, and as a whole the continence outcomes of the stapled group were similar to those after Harmonic Scalpeltrade mark hemorrhoidectomy. Finally, at six-month follow-up, patients who underwent the stapled procedure had significantly better satisfaction scores ($P = 0.001$). CONCLUSION: Stapled hemorrhoidopexy is a safe and effective procedure for Grade III hemorrhoidal disease. Patients derive greater short-term benefits of reduced pain, shorter length of stay, and earlier resumption to work. Long-term follow-up is necessary to determine whether these initial results are lasting.

Recurrence Rates After Abdominal Surgery for Complete Rectal Prolapse: A Multicenter Pooled Analysis of 643 Individual Patient Data.
Raftopoulos Y, Senagore AJ, Di Giuro G, Bergamaschi R
Dis Colon Rectum 2005 Mar 24;.
PURPOSE: This study was designed to determine what impact surgical technique, means of access, and method of rectopexy have on recurrence rates following abdominal surgery for full-thickness rectal prolapse. METHODS: Consecutive individual patient data on age, gender, surgical technique (mobilization-only, mobilization-resection-pexy, or mobilization-pexy), means of access (open or laparoscopic), rectopexy

method (suture or mesh), follow-up length, and recurrences were collected from 15 centers performing abdominal surgery for full-thickness rectal prolapse between 1979 and 2001. Recurrence was defined as the presence of full-thickness rectal prolapse after abdominal surgery. Chi-squared test and Cox proportional hazards regression analysis were used to assess statistical heterogeneity. Recurrence-free curves were generated and compared using the Kaplan-Meier method and log-rank test, respectively. RESULTS: Abdominal surgery consisted of mobilization-only (n = 46), mobilization-resection-pexy (n = 130), or mobilization-pexy (n = 467). There were 643 patients. After excluding center 8, there was homogeneity on recurrence rates among the centers with recurrences (n = 8) for age (hazards ratio, 0.6; 95 percent confidence interval, 0.2-1.7; P = 0.405), gender (hazards ratio, 0.6; 95 percent confidence interval, 0.1-2.3; P = 0.519), and center (hazards ratio, 0.3; 95 percent confidence interval, 0.1-1.5; P = 0.142). However, there was heterogeneity between centers with (n = 8) and without recurrences (n = 6) for gender (P = 0.0003), surgical technique (P < 0.0001), means of access (P = 0.01), and rectopexy method (P < 0.0001). The median length of follow-up of individual centers varied from 4 to 127 months (P < 0.0001). There were 38 recurrences at a median follow-up of 43 (range, 1-235) months. The pooled one-, five-, and ten-year recurrence rates were 1.06, 6.61, and 28.9 percent, respectively. Age, gender, surgical technique, means of access, and rectopexy method had no impact on recurrence rates. CONCLUSIONS: Although this study is likely underpowered, the impact of mobilization-only on recurrence rates was similar to that of other surgical techniques.

Sacral Nerve Stimulation for Fecal Incontinence Following Surgery for Rectal Prolapse Repair: A Multicenter Study.

Jarrett ME, Matzel KE, Stosser M, Baeten CG, Kamm MA

Dis Colon Rectum 2005 Mar 24;.

PURPOSE: A proportion of patients have fecal incontinence secondary to a full-thickness rectal prolapse that fails to resolve following prolapse repair. This multicenter, prospective study assessed the use of sacral nerve stimulation for this indication. METHODS: Patients had to have more than or equal to four days with fecal incontinence per 21-day period more than one year after surgery. They had to have failed conservative treatment and have an intact external anal sphincter. RESULTS: Four female patients aged 42, 54, 68, and 65 years met the inclusion criteria. Three of the four patients had had more than one operation for recurrent full-thickness rectal prolapse before sacral nerve stimulation, one of whom had undergone a further operation for recurrence following stimulation. One patient had undergone one operation for prolapse repair. The preoperative duration of symptoms was ten, eight, three, and nine years, respectively. Although patients had an intact external anal sphincter, one patient had a fragmented internal anal sphincter. The frequency of fecal incontinent episodes changed from 11, 24.7, 5, and 8 per week at baseline to 0, 1.5, 5.5, and 1 per week at latest follow-up. Ability to defer defecation was also improved in two of three patients who had this documented. Fecal incontinence-specific quality of life assessment showed an improvement in all four domains. CONCLUSION: Sacral nerve stimulation should be considered for patients with ongoing fecal incontinence following full-thickness rectal prolapse repair if they prove resistant to conservative treatment.

5 – RETENTIONS

Structural assessment of the urethral sphincter in women with urinary retention.

Andrich DE, Rickards D, Landon DN, Fowler CJ, Mundy AR

J Urol 2005 Apr;173(4):1246-51.

PURPOSE: The pathophysiology of urinary retention in women is generally unknown but a subgroup of women with urinary retention have been diagnosed as having so-called primary disorder of sphincter relaxation on the basis of an abnormal urethral sphincter electromyogram. It was suggested this sphincter overactivity could lead to work hypertrophy of the urethral rhabdosphincter and in this study we looked for any evidence of such muscle fiber hypertrophy. MATERIALS AND METHODS: In 9 women 18 to 45 years old (mean age 31.6) with urinary retention and overactive urethral sphincter electromyogram, light and electron microscopy were used to examine core needle biopsies of the urethral rhabdosphincter taken under transvaginal ultrasound control. Of the 9 patients only 5 biopsies processed for light microscopy and 4 processed for electron microscopy contained striated urethral muscle fibers. The results of these biopsies were compared to the morphology of a control specimen from a postmenopausal woman without a history of urinary retention. RESULTS: On light microscopy the urethral rhabdosphincter fiber diameter did not differ among patients (mean average 7.6 mum), was less than that reported in the literature (15 to 20), but did not differ from that of the control (mean 9.9). In all patients electron microscopy showed excessive peripheral sarcoplasm with lipid and glycogen deposition, and sarcoplasmic accumulation of normal mitochondria. These ultrastructural abnormalities were not seen in the control. CONCLUSIONS: To our knowledge this is the first morphological description of the urethral rhabdosphincter in a subgroup of women with urinary retention. Mean rhabdosphincter fiber diameter was approximately the same in patients and controls. This study does not support the previous theory that urethral sphincter overactivity in a subgroup of women with urinary retention leads to work hyperplasia of urethral rhabdosphincter fibers. An alternative hypothesis is suggested.

Use of alpha(1)-Blockers in Female Functional Bladder Neck Obstruction.

Pischedda A, Pirozzi Farina F, Madonia M, Cimino S, Morgia G

Urol Int 2005;74(3):256-61.

Introduction: Bladder outflow obstruction may cause obstructive or irritative symptoms. The diagnosis of female functional bladder neck obstruction requires a pressure/flow study and electromyography performed by videourodynamics. The treatment includes self-catheterization or bladder neck incision. We administered tamsulosin, an alpha(1)A/alpha(1)D-selective adrenergic antagonist, in women with functional bladder neck obstruction to evaluate its potential therapeutic effects. Patients andMethods: A group of 18 women affected by functional bladder neck obstruction was selected. The diagnosis was made by means of a pressure/flow study combined with electromyography and a fluoroscopic test. The diagnostic criteria were: high detrusor pressure with reduced maximum flow, silent electromyography activity, and bladder neck nonfunnelling during the fluoroscopic test. Tamsulosin 0.4 mg once daily was administered for at least 30 days. Patients with a postvoid residual urine volume >/=100 ml performed intermittent self-catheterization. Patients with a postvoid residual urine volume <100 ml performed self-catheterization every 7 days. After 30 days of therapy, all patients underwent a new pressure/flow study and a micturition fluoroscopic test. Results: 10 (56%) out of 18 treated patients showed a statistically significant improvement in symptoms, maximum flow, and postvoid residual urine volume ($p < 0.01$). Conclusion: The use of alpha(1)-blockers may be an initial treatment option for female functional bladder neck obstruction, as this therapeutic option proved to be effective in more than 50% of our patients suffering from this voiding dysfunction.

Voiding dysfunction in young, nulliparous women: symptoms and urodynamic findings.

Rosenblum N, Scarpero HM, Nitti VW

Int Urogynecol J Pelvic Floor Dysfunct 2004 Nov-Dec;15(6):373-7; discussion 377. Epub 2004 Jul 8.

The objective was to determine urodynamic findings in young, premenopausal, nulliparous women with bothersome lower urinary tract symptoms and assess whether or not symptoms are predictive of specific urodynamic abnormalities. The records of 57 women were reviewed. Those with neurological disease or a primary complaint of stress incontinence were excluded. All completed the American Urological Association Symptom Index (AUASI) and underwent videourodynamics. Symptoms were compared in patients with and without bladder dysfunction and/or voiding phase dysfunction. Bladder dysfunction was diagnosed in 86% of patients with urge incontinence vs. 17% of those without ($p<0.0001$). Patients with voiding phase dysfunction had higher total and voiding AUASI scores. Occult neurological disease was later diagnosed in 4 women (24%) with urge incontinence and bladder dysfunction. Urge incontinence and voiding symptoms are frequently associated with urodynamically demonstrable abnormalities. Urge incontinence and bladder dysfunction may be a sign of occult neurological disease in this population. The presenting symptoms are useful in determining the utility of urodynamics in this population.

Medium-term results of vertical reduction rectoplasty and sigmoid colectomy for idiopathic megarectum.
Gladman MA, Williams NS, Scott SM, Ogunbiyi OA, Lunniss PJ
Br J Surg 2005 Apr 4;.
BACKGROUND:: Vertical reduction rectoplasty (VRR) was devised specifically to address the physiological abnormalities present in the rectum of patients with idiopathic megarectum (IMR). This study evaluated the medium-term clinical and physiological results of VRR. METHODS:: VRR and sigmoid colectomy was performed in ten patients with IMR and constipation (six women). Patients were evaluated before and a median of 60 (range 28-74) months after surgery by assessment of symptoms using scoring systems and anorectal physiological measurements. Independent, detailed postoperative evaluation of rectal diameter, compliance, and sensory and evacuatory function was performed. RESULTS:: There were no deaths or late complications. Symptoms recurred necessitating permanent ileostomy formation in two patients. Median (range) constipation scores improved from 22 (18-27) before to 10 (0-24) after surgery (P = 0.016). Median (range) bowel frequency increased from 1.5 (0.2-7) to 7 (0.5-21) per week (P = 0.016). Rectal diameter, compliance and sensory function were normal in seven of eight patients after surgery. Evacuatory function and colonic transit were each normalized in two of eight patients after VRR. CONCLUSION:: VRR corrected rectal diameter, compliance and sensory function in most patients, and clinical benefit was sustained in the medium term. The procedure was associated with a low morbidity, and no mortality and should be considered in the surgical management of IMR. Copyright (c) 2005 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd.

Efficacy and safety of traditional medical therapies for chronic constipation: systematic review.
Ramkumar D, Rao SS
Am J Gastroenterol 2005 Apr;100(4):936-71.
OBJECTIVES: Constipation is common, and its treatment is unsatisfactory. Although many agents have been tried, there are limited data to support their use. Our aim was to undertake a systematic review of the efficacy and safety of traditional medical therapies for chronic constipation and to make evidence-based recommendations. METHODS: We searched the English literature for drug trials evaluating treatment of constipation by using MEDLINE and PUBMED databases from 1966 to 2003. Only studies that were randomized, conducted on adult subjects, and published as full manuscripts were included. Studies were assigned a quality score based on published methodology. Standard forms were used to abstract data regarding study design, duration, outcome measures, and adverse events. By using the cumulative evidence of published data for each agent, recommendations were made regarding their use following the United States Preventive Services Task Force guidelines. RESULTS: Good evidence (Grade A) was found to support the use of polyethylene glycol (PEG) and tegaserod. Moderate evidence (Grade B) was found to support the use of psyllium, and lactulose. There was a paucity of quality data regarding many commonly used agents including milk of magnesia, senna, bisacodyl, and stool softeners. CONCLUSIONS: There is good evidence to support the use of PEG, tegaserod, lactulose, and psyllium. Surprisingly, there is a paucity of trials for many commonly used agents. These aspects should be considered when designing trials comparing new agents with traditional therapies because their use may not be well validated. (Am J Gastroenterol 2005;100:1-36).

Constipation management in palliative care: a survey of practices in the United kingdom.
Goodman M, Low J, Wilkinson S
J Pain Symptom Manage 2005 Mar;29(3):238-44.
Fifty percent of patients admitted to hospices cite constipation as a concern. This study evaluates how constipation was managed in 11 hospices. Patients and nurses completed questionnaires at two time points: baseline and 7-10 days later. Outcomes were evaluated using a Constipation Visual Analogue Scale and a satisfaction with management of constipation questionnaire. A total of 475 patients participated; 413 completed both assessments. Forty-six percent of patients reported no constipation and 15% of patients reported severe constipation. For 75% of patients, no change in the perception of constipation was observed over the study period. Patients expressed satisfaction with their constipation management. The severity of constipation was overestimated by nurses in many patients. The findings indicate that constipation was being prevented or reasonably well managed. However, severe constipation continues to be a problem. Assessment of patients' bowel function needs to be more rigorous and those identified as severely constipated need daily monitoring.

Images in clinical medicine. Severe fecal impaction.
Loubieres Y, Chereau O
N Engl J Med 2005 Mar 24;352(12):e12.

Systematic review of surgical options for idiopathic megarectum and megacolon.
Gladman MA, Scott SM, Lunniss PJ, Williams NS
Ann Surg 2005 Apr;241(4):562-74.
OBJECTIVE: A subgroup of patients with intractable constipation has persistent dilatation of the bowel, which in the absence of an organic cause is termed idiopathic megabowel (IMB). The aim of this systematic review was to evaluate the published outcome data of surgical procedures for IMB in adults. METHODS: Electronic searches of the MEDLINE (PubMed) database, Cochrane Library, EMBase, and Science Citation Index were performed. Only peer-reviewed articles of surgery for IMB published in the English language were evaluated. Studies of all surgical procedures were included, providing they were performed on 3 or more patients, and overall success rates were documented. Studies were critically appraised in terms of design and methodology, inclusion criteria, success, mortality and morbidity rates, and functional outcomes. RESULTS: A total of 27 suitable studies were identified, all evidence was low quality obtained from case series, and there were no comparative studies. The studies involved small numbers of patients (median 12, range 3-50), without long-term follow-up (median 3 years, range 0.5-7). Inclusion of subjects, methods of data acquisition, and reporting of outcomes were extremely variable. Subtotal colectomy was successful in 71.1% (0%-100%) but was associated with significant morbidity related to bowel obstruction (14.5%, range 0%-29%). Segmental resection was successful in 48.4% (12.5%-100%), and recurrent symptoms were common (23.8%). Rectal procedures achieved a successful outcome in 71% to 87% of patients. Proctectomy, the Duhamel, and pull-through procedures were associated with significant mortality (3%-25%) and morbidity (6%-29%). Vertical reduction rectoplasty (VRR) offered promising short-term success (83%). Pelvic-floor procedures were associated with poor outcomes. A stoma provided a safe alternative but was only effective in 65% of cases. CONCLUSIONS: Outcome data of surgery for IMB must be interpreted with extreme caution due to limitations of included studies. Recommendations based on firm evidence cannot be given, although colectomy appears to be the optimum procedure in patients with a nondilated rectum, restorative proctocolectomy the most suitable in those with dilatation of the colon and rectum, and VRR in those patients with dilatation confined to the rectum. Appropriately designed studies are required to make valid comparisons of the different procedures available.

Laparoscopic Total Colectomy for Slow-Transit Constipation.
Kessler H, Hohenberger W
Dis Colon Rectum 2005 Mar 15;.
INTRODUCTION: Total colectomy is the preferred surgical option in proven slow-transit constipation. With advances in technology and instrumentation, laparoscopic total colectomy has become feasible. METHODS: After a mechanical bowel preparation, the patient is placed in a modified lithotomy position and pneumoperitoneum is established. Using a subumbilical 12-mm trocar the camera is inserted. Two further 12-mm and 5-mm trocars, each, are used for access to the peritoneal cavity. In an approach from medial to lateral, ileocolic, middle colic vessels and the inferior mesenteric artery are divided. Medial mobilization is completed before the sigmoid is freed up laterally. The lateral mobilization continues orally to the descending, transverse, and ascending colon with the omentum being separated from the transverse colon completely. The mesorectum is divided using the harmonic scalpel, and the upper rectum is transected with either one or two passes of the endoscopic linear cutting stapler. The colon is exteriorized through a 5-cm Pfannenstiel incision. The terminal ileum is transected extracorporeally. After pneumoperitoneum has been reestablished, the ileorectal anastomosis is performed laparoscopically using a double-stapling technique. RESULTS: The video reports about a 56-year-old lady who had been suffering from chronic constipation since childhood and had become dependent on laxatives. A dolichocolon had been found in barium enema. A prolonged colonic passage was proven in an x-ray transit study. There were no intraoperative or postoperative complications. After surgery, first bowel movements occurred on the second day and the patient was discharged from the hospital on the sixth postoperative day. CONCLUSIONS: Laparoscopic total colectomy is a safe, feasible operation for slow transit constipation. With fast recovery and short length of stay it may become an attractive surgical approach.

Role of progesterone signaling in the regulation of G-protein levels in female chronic constipation.
Xiao ZL, Pricolo V, Biancani P, Behar J
Gastroenterology 2005 Mar;128(3):667-75.
BACKGROUND & AIMS: Chronic constipation caused by slow transit is common in women with an F/M ratio of 9:1. The cause and mechanisms responsible for this syndrome are unknown. Progesterone has been suggested as a possible contributing factor. Our aim was to investigate the site and mechanisms responsible for this colonic motility disorder. METHODS: Seven women with intractable constipation and slow transit time underwent colectomy and 6 women who underwent a left colectomy for adenocarcinoma (controls) were studied. Dissociated colonic circular muscle cells were obtained by enzymatic digestion. Changes in G-protein levels were measured by Western blot. The messenger RNA (mRNA) expression of Galpha q and

progesterone receptors was determined by reverse-transcription polymerase chain reaction and Northern blot. RESULTS: Muscle cells from patients with chronic constipation exhibited impaired contraction in response to receptor-G-protein-dependent agonists (cholecystokinin [CCK], acetylcholine) and in response to the direct G-protein activator guanosine 5'-O-(3-thiophosphate). Contraction was normal with receptor-G-protein-independent agonists (diacylglycerol and KCl). Western blot showed down-regulation of Galpha q/11 and up-regulation of Galpha s proteins in patients with chronic constipation. The mRNA expression of Galpha q was lower and the progesterone receptors were overexpressed in patients with chronic constipation compared with controls. These abnormalities were reproduced in vitro by pretreatment of normal colonic muscle cells with progesterone for 4 hours. CONCLUSIONS: Slow transit chronic constipation in women may be caused by down-regulation of contractile G proteins and up-regulation of inhibitory G proteins, probably caused by overexpression of progesterone receptors.

6 – INCONTINENCES

Risk factors for obstetrical anal sphincter lacerations.

Dandolu V, Chatwani A, Harmanli O, Floro C, Gaughan JP, Hernandez E
Int Urogynecol J Pelvic Floor Dysfunct 2005 Apr 5;.

The objective of this study was to identify the rate of anal sphincter lacerations in a large population-based database and analyze risk factors associated with this condition. Data were obtained from Pennsylvania Healthcare Cost Containment Council (PHC4) regarding all cases of obstetrical third and fourth degree perineal lacerations that occurred during a 2-year period from January 1990 to December 1991. Modifiable risk factors associated with this condition were analyzed, specifically episiotomy, forceps-assisted vaginal delivery, forceps with episiotomy, vacuum-assisted vaginal delivery, and vacuum with episiotomy. There were a total of 168,337 deliveries in 1990 and 165,051 deliveries in 1991 in Pennsylvania. Twenty-two percent (n=74,881) of the deliveries were by cesarean section and were excluded from analysis. Among the remaining 258,507 deliveries, there were 18,888 (7.3%) third and fourth degree lacerations. Instrumental vaginal delivery, particularly with use of episiotomy, increased the risk of laceration significantly [forceps odds ratio (OR): 3.84, forceps with episiotomy OR: 3.89, vacuum OR: 2.58, vacuum with episiotomy OR: 2.93]. Episiotomy on the whole was associated with a threefold increase in the risk of sphincter tears. However, episiotomy in the absence of instrumental delivery seems to be protective with an OR of 0.9 [95% confidence interval (CI): 0.88-0.93]. Instrumental vaginal delivery, particularly forceps delivery, appears to be an important risk factor for anal sphincter tears. The risk previously attributed to episiotomy is probably due to its association with instrumental vaginal delivery. Forceps delivery is associated with higher occurrence of anal sphincter injury compared to vacuum delivery.

Risk of recurrence of anal sphincter lacerations.

Dandolu V, Gaughan JP, Chatwani AJ, Harmanli O, Mabine B, Hernandez E
Obstet Gynecol 2005 Apr;105(4):831-5.

OBJECTIVE: To estimate the rate of recurrence of anal sphincter lacerations in subsequent pregnancies and analyze the risk factors associated with recurrent lacerations METHODS: Data were obtained from the Pennsylvania Health Care Cost Containment Council, Division of In-Patient Statistics, regarding all cases of third- and fourth-degree perineal lacerations that occurred during a 2-year period (from January 1990 through December 1991). All subsequent pregnancies in this group of women over the next 10 years were identified, and the rate of recurrence of sphincter tears and risk factors for recurrence were analyzed. RESULTS: The rate of anal sphincter lacerations was 7.31% (n = 18,888) during the first 2 years of study (1990-1991). In the next 10 years, these patients with prior lacerations were delivered of 16,152 pregnancies. Of these, 1,162 were by cesarean. Among the 14,990 subsequent vaginal deliveries, 864 (5.76%) had a recurrence of a third- or fourth-degree laceration. Women with prior fourth-degree lacerations had a much higher rate of recurrence than those with prior third-degree laceration (7.73% versus 4.69%). The rate for recurrent lacerations was significantly lower than the rate for initial lacerations (odds ratio 1.29, 95% confidence interval [CI] 1.2-1.4). Forceps delivery with episiotomy had the highest risk for recurrent laceration (17.7%, odds ratio 3.6, 95% CI 2.6-5.1), whereas vacuum use without episiotomy had the lowest risk (5.88%, odds ratio 1.0, 95% CI 0.6-1.7). CONCLUSION: Prior anal sphincter laceration does not appear to be a significant risk factor for recurrence of laceration. Operative vaginal delivery, particularly with episiotomy, increases the risk of recurrent laceration as it does for initial laceration. LEVEL OF EVIDENCE: III.

Anal Incontinence After Obstetric Sphincter Tears: Outcome of Anatomic Primary Repairs.

Norderval S, Oian P, Revhaug A, Vonen B
Dis Colon Rectum 2005 Mar 22;.

PURPOSE: Obstetric sphincter tears lead to anal incontinence in 40 to 60 percent of affected women. Primary repair is usually performed without identifying the internal anal sphincter. Since 1999 digestive

surgeons have participated in the primary repair of such tears at our hospital. The intention was to perform separate repair of the internal and external anal sphincter in cases of combined tears to achieve a lower incontinence rate than is usually reported after conventional primary repair. The aim of the present study was to evaluate our results after anatomic primary repair. METHOD: A follow-up study was undertaken after all primary repairs performed in 1999 and 2000. It included anal ultrasonography manometry and an assessment of incontinence (Wexner score). RESULTS: A total of 74 women sustained obstetric sphincter tears during the study period, and 71 (96 percent) were assessed after a median of 27 months (range, 14-39 months). Nine women declined investigation with ultrasonography/manometry. Incontinence was present in 22 women (31 percent), of whom 17 had gas incontinence only. The symptoms were mild (Wexner score 1-2) in 11 women (50 percent). None of 17 women with normal ultrasonography results were incontinent versus 20 of 45 with pathologic ultrasonographic results (P = 0.001). The mean sphincter length, squeeze pressure, and resting pressure were significantly higher in women with Wexner scores of 0-2 vs. women with a score of more than 2. Sphincter length was inversely correlated with the degree of incontinence (P < 0.001). CONCLUSIONS: The incontinence rate after anatomic primary repair is low compared with the last decade's reported results after conventional primary repair. A short anal sphincter after repair is associated with a poorer outcome.

Transobturator vaginal tape inside out for the surgical treatment of female stress urinary incontinence: anatomical considerations.
Bonnet P, Waltregny D, Reul O, de Leval J
J Urol 2005 Apr;173(4):1223-8.
PURPOSE: We have recently described a novel surgical technique for female stress urinary incontinence, that is the transobturator vaginal tape inside out, which uses specific instruments for the passage of a synthetic tape from beneath the urethra toward the thigh folds. Herein we report the results of cadaver dissection performed to determine the anatomical trajectory of the tape and its relationships with neighboring neurovascular structures and organs. MATERIALS AND METHODS: Insertion of the transobturator vaginal tape inside out tape was performed by different surgeons in 12 freshly frozen female cadavers according to the standard procedure. The thigh, obturator, perineal and pelvic regions were dissected and tape trajectory was recorded. An additional cadaver was dissected without prior tape placement. RESULTS: The tape was inserted according to a certain consistent path, that is penetration from the suburethral space into a strictly perineal region limited medial and cranial by the levator ani muscle, caudal by the perineal membrane and lateral by the obturator internus muscle. This region corresponded to the most anterior recess of the ischiorectal fossa. The tape then perforated the obturator membrane and muscles, and exited through the skin after traversing adductor muscles and subcutaneous tissue. The tape was coursed away from 1) the dorsal nerve to the clitoris located more superficially below the perineal membrane, 2) the obturator nerve and vessels, and 3) the saphenous and femoral vessels. CONCLUSIONS: These findings strongly suggest that our transobturator technique is highly accurate, reproducible and safe, and it does not require perioperative cystoscopy.

Association between valsalva and cough leak point pressures and pelvic organ prolapse quantification in women with stress incontinence.
Latini JM, Zimmerman MB, Kreder KJ Jr
J Urol 2005 Apr;173(4):1219-22.
PURPOSE: Women with urodynamically documented stress urinary incontinence (SUI) and urethral hypermobility may have a higher pelvic organ prolapse quantification (POP-Q) stage according to anterior POP-Q measurements. In this study we determined if POP-Q system anterior components representing the urethrovesical junction (anterior wall point Aa/Ba) and/or POP-Q stage has a relationship with leak point pressure testing. MATERIALS AND METHODS: Of the 1,511 women who underwent video fluoro-urodynamics during 1997 to 2003 at our institution 88 with only evidence of SUI with negative Valsalva leak point pressure and positive cough leak point pressure (CLPP) were selected. RESULTS: Average patient age was 58.6 years (range 32 to 89). Of the 88 women 82 had complete POP-Q examinations available, which revealed stages 0 to III in 21 (25.61%), 20 (24.39%), 40 (48.78%) and 1 (1.22%), respectively. The association between POP-Q stage/components and positive CLPP showed no significant difference in mean positive CLPP among POP-Q stages (p = 0.178) or components (p = 0.42 to 0.97). The test for linear trend was not significant (p = 0.636) for POP-Q stages/components (p = 0.40 to 0.93). No significant difference in volume at which positive CLPP occurred was observed among POP-Q stages (p = 0.283) or components (p = 0.13 to 0.75). The proportion of patients with leakage at 200 cc did not differ significantly among POP-Q stages (p = 0.119) or components (p = 0.15 to 0.60). CONCLUSIONS: Analysis of women with urodynamic evidence of SUI with negative Valsalva leak point pressure and positive CLPP did not show any significant association with components of the POP-Q system or with POP-Q stages. Findings support that POP-Q measurements should not be interpreted as indicators of urethral hypermobility when evaluating women with

SUI.

Outcomes following revisions and secondary implantation of the artificial urinary sphincter.
Raj GV, Peterson AC, Toh KL, Webster GD
J Urol 2005 Apr;173(4):1242-5.
PURPOSE: Durable success with the artificial urinary sphincter (AUS) is common but device revision and replacement are often needed for various reasons. We examined indications and outcomes following these secondary procedures with comparisons to outcomes after primary procedures. MATERIALS AND METHODS: The medical records of all patients undergoing primary and secondary bulbar urethral AUS implantation and revision from January 1990 to September 2002 were reviewed for various demographic and surgical variables. Female patients and males with bladder neck cuffs were excluded from study. RESULTS: Of 554 men undergoing AUS implantation or revision 119 (21.4%) underwent a total of 159 secondary procedures. Reasons for revision were mechanical failure in 31 cases (25.2%) and nonmechanical failure in 88 (73.9%). The latter included recurrent incontinence due to urethral atrophy in 63 cases (52.9%) and erosion in 21 (17.6%). Total device replacement was performed in 75 cases (47.2%). Of 119 patients undergoing secondary implantation 91 (76.5%) needed no additional surgical intervention, while 28 (23.5%) required a total of 40 surgical revisions for new mechanical (15 or 37.5%) and nonmechanical (25 or 62.5%) problems. Five-year durability outcomes for primary and secondary AUS implantation were comparable at 80% and 88%, respectively. Similarly excellent continence outcomes (0 to 1 pad daily) were noted in 90% and 82% of patients undergoing primary and secondary AUS implantation, respectively. Secondary and tertiary AUS revisions resulted in the restoration of baseline continence in 106 cases (89%). CONCLUSIONS: Our study suggests that outcomes for secondary AUS reimplantation are comparable to those of primary AUS implantation and salvage of a good outcome is always probable, even following multiple prior revisions and cuff erosion.

Randomized Clinical Trial Comparing Suprapubic Arch Sling (SPARC) and Tension-Free Vaginal Tape (TVT): One-Year Results.
Andonian S, Chen T, St-Denis B, Corcos J
Eur Urol 2005 Apr;47(4):537-41. Epub 2005 Jan 13.
PURPOSE:: Suprapubic Arch sling (SPARC) has been initially presented as being comparable to Tension-free Vaginal Tape (TVT) without published trials. To test the safety and efficacy of this new product, we designed a prospective, randomized clinical trial with a minimum follow-up of 1 year. MATERIALS AND METHODS:: 84 women presenting with Stress Urinary Incontinence (SUI) were randomly assigned to SPARC or TVT as a minimally invasive mid-urethral sling procedure. All patients were re-evaluated at 1, 6, and 12 months. Symptom assessment, Incontinence Impact Questionnaire (IIQ), physical examination, Uro-Dynamic Studies (UDS) and 1-hour pad test were repeated at 1-year follow-up. RESULTS:: 41 patients were randomized to SPARC and 43 to TVT. The two groups had similar baseline characteristics. Both procedures resulted in similar peri-operative complications: bladder perforation (24% vs. 23%), median estimated blood loss (0-50ml), median hospital stay (1-night), post-operative analgesia, and persistent urinary retention necessitating tape resection (2 patients in each group). There were three other complications in the SPARC group: tape erosion, infected pelvic hematoma, and urinary tract infection. At 12 months, there was no statistically significant difference between SPARC and TVT, in terms of objective cure rates as determined by 1-hour pad test of less than two grams (83% vs. 95%; p</=0.1; 12% difference, 95% CI: 25.4% to -1.4%) and subjective cure rates as determined by IIQ scores (49.9+/-25.6 vs. 45.3+/-18.4; p=0.46). CONCLUSIONS:: At 1-year follow-up, there is no statistically significant difference between SPARC and TVT. Longer follow-up is needed to confirm these results.

Urinary incontinence in US women: a population-based study.
Melville JL, Katon W, Delaney K, Newton K
Arch Intern Med 2005 Mar 14;165(5):537-42.
BACKGROUND: Urinary incontinence (UI) is a common disorder that is increasingly important as our population ages. Less is known about UI in younger women, and few large surveys have been able to determine risk factors by linking their data to patients' medical findings. METHODS: We conducted a population-based, age-stratified postal survey of 6000 women aged between 30 and 90 years who were enrolled in a large health maintenance organization in Washington State. RESULTS: The response rate was 64% (n = 3536) after exclusion criteria were applied. The population-based prevalence of UI was 45%. Prevalence increased with age, from 28% for 30- to 39-year-old women to 55% for 80- to 90-year-old women. Eighteen percent of respondents reported severe UI. The prevalence of severe UI also increased notably with age, from 8% for 30- to 39-year-old women to 33% for 80- to 90-year-old women. Older age, higher body mass index (BMI, calculated as weight in kilograms divided by the square of height in meters), greater medical comorbidity, current major depression, a history of hysterectomy, and parity increased the

odds of having UI. Not being white and having had only cesarean deliveries decreased the odds of having UI. Major depression (odds ratio, 2.48; 95% confidence interval, 1.65-3.72) and obesity, defined as having a BMI of 30 or greater (odds ratio, 2.39; 95% confidence interval, 1.99-2.87), had the strongest association with UI. Among women with UI, age, BMI, medical comorbidity, current major depression, diabetes, a history of hysterectomy, and having had only cesarean deliveries were significantly associated with severe UI. CONCLUSIONS: Urinary incontinence is highly prevalent in women across their adult life span, and its severity increases linearly with age. Age, BMI, race, medical comorbidity, current major depression, a history of hysterectomy, parity, and having only had cesarean deliveries are each independent factors significantly associated with the likelihood of having UI.

Tension-free vaginal tape in the elderly: is it a safe procedure?
Gordon D, Gold R, Pauzner D, Lessing JB, Groutz A
Urology 2005 Mar;65(3):479-82.
OBJECTIVES: To analyze the safety and efficacy of tension-free vaginal tape (TVT) surgery in elderly versus younger women with stress urinary incontinence (SUI). METHODS: A total of 157 consecutive elderly women, aged 70 years and older, and 303 younger women (mean age, 74.8 and 57.2 years, respectively) who underwent TVT for urodynamically-confirmed SUI were prospectively enrolled. Concomitant genitourinary prolapse repair was performed in 84% of the elderly and 67% of the younger women. The main outcome measures were perioperative morbidity, postoperative SUI, persistent or de novo urge incontinence, and voiding dysfunction. RESULTS: The incidence of TVT-related morbidity was similar in both groups, except for significantly fewer cases of bladder perforation among elderly women (1.3% versus 4.9%, P <0.05). However, some age-related morbidity was noted among the elderly women: 2 cases of pulmonary embolism, 2 cases of cardiac arrhythmia, 1 case of severe pneumonia, and 1 case of deep vein thrombosis. The outcome analysis was restricted to 123 elderly and 208 younger women with follow-up of at least 12 months (mean, 30 +/- 12 months; range, 12 to 67 months). The incidence of persistent postoperative SUI and persistent urge incontinence was similar in both age groups. However, de novo urge incontinence was significantly more common among elderly women (18% versus 4%, P <0.05). Two elderly and three younger women had postoperative pressure-flow studies suggestive of bladder outlet obstruction. CONCLUSIONS: Tension-free vaginal tape surgery in elderly women is associated with good outcome results; however, the risk of postoperative de novo urge incontinence, as well as age-related morbidity, is increased.

Which sling for which patient?
Palma PC
Int Urogynecol J Pelvic Floor Dysfunct 2004 Nov-Dec;15(6):369-72. Epub 2004 Oct 7.

Complications of synthetic graft materials used in suburethral sling procedures.
Tsui KP, Ng SC, Tee YT, Yeh GP, Chen GD
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):165-7. Epub 2004 Oct 19.
Problems relating to the erosion of sling material, through either the vagina or the urethra, have been encountered with almost all kinds of synthetic sling materials. We present four unusual cases of women using different synthetic materials and the complications that occurred. The biopsies were examined histologically and analyzed for collagen and inflammatory reactions. Four patients who underwent suburethral slingplasty previously with different sling materials required surgical management for complications, including one intravesical Ethibond migration, vaginal mucosal mesh erosion in two patients, and one proximal urethral overcorrection with intravesical erosion. We reviewed the literature regarding the amount of mesh erosion and connective tissue reaction with synthetic materials. The efficiency of mesh removal was assessed. The four patients maintained urinary continence after urethrolysis and removal of the mesh. Fibrosis and severe inflammatory reactions were found in the connective tissue adjacent to the mesh as well as the Prolene mesh. Technically, it would be easier to remove the graft of patch sling if rejection or erosion occurs.

Assessing outcome after a modified vaginal wall sling for stress incontinence with intrinsic sphincter deficiency.
Costantini E, Mearini L, Mearini E, Pajoncini C, Guercini F, Bini V, Porena M
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):138-46. Epub 2004 Oct 22.
Forty women with stress incontinence, intrinsic sphincter deficiency (ISD), associated or not with urethral hypermobility, a Valsalva leak point pressure (VLLP) <60 cmH(2)0 and a maximum urethral closure pressure <30 cmH(2)0 underwent in situ vaginal wall sling. The main modification to the technique was the use of two small Marlex meshes placed at the lateral edges of the sling. Outcome was assessed by pad use, surgical results and patients' satisfaction. Data of 39/40 patients were analyzed after a minimum follow-up of 1 year. After surgery 30/39 patients were completely dry (no pads), stress incontinence disappeared in 22/39, and

30/39 patients were satisfied with outcome. Reasons for dissatisfaction included recurrence of stress incontinence in three, infections in one and urge incontinence in five. Overall results are good given this category of patients. The vaginal wall sling can be recommended for patients with ISD because the results are promising, it corrects urethral hypermobility and, in our experience, it does not cause obstruction if correctly performed.

Fecal Incontinence in Women: A Review of Evaluation and Management.
Novi JM, Mulvihill BH
Obstet Gynecol Surv 2005 Apr;60(4):261-269.
Fecal incontinence is a socially and psychologically distressing condition affecting a substantial number of women worldwide. It can have a major impact on the quality of life of those patients who are afflicted. Many therapeutic options exist for the treatment of fecal incontinence, but identifying affected patients remains an elusive and important first step in the evaluation process. TARGET AUDIENCE:: Obstetricians & Gynecologists, Family Physicians LEARNING OBJECTIVES:: After completion of this article, the reader should be able to explain the mechanism of fecal incontinence, to outline the workup of a patient with fecal incontinence, and to summarize the potential treatment options for fecal incontinence.

Defecographic disorders in anal incontinent women: relation to symptoms and anal endosonographic patterns.
Savoye-Collet C, Savoye G, Koning E, Dacher JN
Scand J Gastroenterol 2005 Feb;40(2):141-6.
OBJECTIVE: The need for a defecography in incontinent women is still debatable. We prospectively evaluated the prevalence of defecographic abnormalities in incontinent women in order to determine whether any symptom or endosonographic findings could be associated with a particular defecographic pattern. MATERIAL AND METHODS: Fifty incontinent women (aged 30-87 years) underwent defecography and anal endosonography to look for pelvic floor descent, rectocele, intussusception, enterocele and the presence of anal sphincter defects. Other symptoms, i.e. straining at stools and pelvic pressure, were recorded. RESULTS: Twenty-five cases of external sphincter defect (12 associated with an internal defect) and 4 cases of isolated internal defect were identified. Defecography identified 25 patients with perineal descent at rest, 28 with perineal descent at straining, 30 with rectocele, 30 with intussusception and 14 with enterocele. Three defecographies were normal. In the 29 women with sphincter defects, the prevalence of defecographic abnormalities did not differ from that observed in the 21 women without sphincter defects. In women complaining of straining at stools (n=26) or idiopathic pelvic pressure (n=32), the prevalence of defecographic abnormalities did not differ from that observed in women who did not have these symptoms. CONCLUSIONS: The prevalence of pelvic floor disorders in incontinent women was similar whether associated symptoms or anal sphincter defects were present or not. When defecography has to be performed to investigate female anal incontinence, neither clinical nor endosonographic features can predict a higher diagnostic efficiency.

Prevalence of and factors associated with fecal incontinence in a large community study of older individuals.
Quander CR, Morris MC, Melson J, Bienias JL, Evans DA
Am J Gastroenterol 2005 Apr;100(4):905-9.
OBJECTIVES: In this study, we describe the prevalence of fecal incontinence by race, age, sex, the presence of major chronic conditions of stroke and diabetes, and the use of certain psychoactive medications. METHODS: Study subjects are participants in the Chicago Health and Aging Project, a study of older Chicago residents of a geographically defined area. In the period 1993-1996, interviewers conducted a door-to-door census that identified 6,099 individuals who participated in in-home interviews. The interviews included a wide range of questions regarding demographics, medical history, and medication use. The question used to determine the presence of fecal incontinence was: "In the past few months have you ever lost control of your bowels when you didn't want to?"RESULTS: Fecal incontinence was seen in 585 of 6,099 survey responders yielding an overall prevalence of 9.6%. The prevalence of fecal incontinence was strongly associated with age across all demographic groups. We did not observe significant differences in the prevalence for males and females once we adjusted for age. However, the increase in prevalence with age was significantly greater among Blacks than Whites. The use of psychoactive medications was found to be associated with significantly higher odds of fecal incontinence. Diabetes and stroke were associated with a higher prevalence of fecal incontinence. CONCLUSIONS: These cross-sectional analyses offer promising evidence that this common condition is correlated with the presence of certain conditions (e.g., stroke and diabetes) and use of certain psychoactive medications. (Am J Gastroenterol 2005;100:1-5).

Relationship between symptoms and disordered continence mechanisms in women with idiopathic

faecal incontinence.
Bharucha AE, Fletcher JG, Harper CM, Hough D, Daube JR, Stevens C, Seide B, Riederer SJ, Zinsmeister AR
Gut 2005 Apr;54(4):546-55.
BACKGROUND AND AIMS: Anal sphincter weakness and rectal sensory disturbances contribute to faecal incontinence (FI). Our aims were to investigate the relationship between symptoms, risk factors, and disordered anorectal and pelvic floor functions in FI. METHODS: In 52 women with "idiopathic" FI and 21 age matched asymptomatic women, we assessed symptoms by standardised questionnaire, anal pressures by manometry, anal sphincter appearance by endoanal ultrasound and magnetic resonance imaging (MRI), pelvic floor motion by dynamic MRI, and rectal compliance and sensation by a barostat. RESULTS: The prevalence of anal sphincter injury (by imaging), reduced anal resting pressure (35% of FI), and reduced squeeze pressures (73% of FI) was higher in FI compared with controls. Puborectalis atrophy (by MRI) was associated ($p<0.05$) with FI and with impaired anorectal motion during pelvic floor contraction. Volume and pressure thresholds for the desire to defecate were lower, indicating rectal hypersensitivity, in FI. The rectal volume at maximum tolerated pressure (that is, rectal capacity) was reduced in 25% of FI; this volume was associated with the symptom of urge FI ($p<0.01$) and rectal hypersensitivity ($p = 0.02$). A combination of predictors (age, body mass index, symptoms, obstetric history, and anal sphincter appearance) explained a substantial proportion of the interindividual variation in anal squeeze pressure (45%) and rectal capacity (35%). CONCLUSIONS: Idiopathic FI in women is a multifactorial disorder resulting from one or more of the following: a disordered pelvic barrier (anal sphincters and puborectalis), or rectal capacity or sensation.

Sacral Neuromodulation in Treatment of Fecal Incontinence Following Anterior Resection and Chemoradiation for Rectal Cancer.
Ratto C, Grillo E, Parello A, Petrolino M, Costamagna G, Doglietto GB
Dis Colon Rectum 2005 Mar 22;.
PURPOSE: Fecal incontinence may occur in patients who have undergone anterior resection for rectal cancer without presenting sphincter lesions. Chemoradiation may contribute to disrupting continence mechanisms. Treatment is controversial. Assessment of fecal incontinence in patients who agreed to integrate treatment for rectal cancer and treatment with sacral neuromodulation are reported. METHODS: Fecal incontinence following preoperative chemoradiation and anterior resection for rectal cancer was evaluated in four patients. A good response was observed during the percutaneous sacral nerve evaluation test, and so permanent implant of sacral neuromodulation system was performed. Reevaluation was performed at least two months after implant. RESULTS: After device implantation, the mean fecal incontinence scores decreased, and the mean number of incontinence episodes dropped from 12.0 to 2.5 per week ($P < 0.05$). Permanent implant resulted in a significant improvement in fecal continence in three patients, and incontinence was slightly reduced in the fourth. Manometric parameters agreed with clinical results: maximum and mean resting tone and the squeeze pressure were normal in three patients and reduced in one. In these same three patients, neorectal sensation parameters increased when the preoperative value was normal or below normal and decreased when the preoperative value was higher than normal, whereas in one patient in whom extremely low values were recorded all of the parameters decreased significantly. CONCLUSIONS: Fecal incontinence following anterior resection and neoadjuvant therapy should be carefully evaluated. If a suspected neurogenic pathogenesis is confirmed, sacral neuromodulation may be proposed. If the test results are positive, permanent implant is advisable. Failure of this approach does not exclude the use of other, more aggressive treatment.

7 – PAIN

Rectal endometriosis.
Yoshida S, Fu KI, Sano Y, Taku K, Endo Y
Gastrointest Endosc 2005 Mar;61(3):433-4.

Abnormal urinary potassium metabolism in patients with interstitial cystitis.
Parsons CL, Greene RA, Chung M, Stanford EJ, Singh G
J Urol 2005 Apr;173(4):1182-5.
PURPOSE: If most patients with interstitial cystitis (IC) have epithelial leakage allowing urinary K to penetrate the interstitium and provoke symptoms, urinary K should be lower in untreated patients than in healthy subjects and it should increase with successful heparinoid treatment. This study tested these hypotheses. MATERIALS AND METHODS: Na, K and creatinine (Cr) were determined in spot urine samples from new, symptomatic, untreated patients with IC meeting all National Institute of Diabetes and Digestive and Kidney Diseases clinical diagnostic criteria, returning patients with IC reporting 50% or greater symptom improvement after 4 or greater months of oral heparinoid therapy and control subjects, and in 24-hour urine samples from new untreated patients and controls. RESULTS: In spot urine specimens of 37 new patients with IC K-to-Cr ratios were significantly lower than in 18 controls (0.51 vs 0.88 mg/mg Cr, p = 0.001). A total of 50 successfully treated patients with IC had significantly higher K-to-Cr ratios than those in 37 new patients (0.66 vs 0.51 mg/mg Cr, p = 0.025). Na-to-Cr ratios in the 3 groups were not significantly different. In 24-hour urine specimens 30 new patients had lower average K (31.0 vs 46.2 mEq/l, p = 0.01) and lower K-to-Cr ratios (0.43 vs 0.52 mg K/mg Cr, p = 0.01) than in 47 controls, while Na was not significantly different. CONCLUSIONS: Our finding of lower urinary K in new, untreated patients supports the concept of abnormal epithelial permeability and K absorption in IC. Higher urinary K in successfully treated vs untreated patients may reflect decreasing urinary K absorption due to mucosal repair and a resulting decrease in epithelial permeability. K/mg Cr appears accurate for normalizing urinary K.

Oxidative stress and endometriosis.
Jackson LW, Schisterman EF, Dey-Rao R, Browne R, Armstrong D
Hum Reprod 2005 Apr 7;.
BACKGROUND: Little is known about the aetiology of endometriosis; however, in the presence of oxidative stress, reactive oxygen species might increase growth and adhesion of endometrial cells in the peritoneal cavity, leading to endometriosis and infertility. Within a study investigating persistent organic compounds and endometriosis, the authors evaluated the association between oxidative stress and endometriosis. METHODS: Women aged 18-40 years who were undergoing laparoscopy were contacted to participate in the study (n=100); 84 were eligible and agreed to be interviewed; 78 provided blood specimens. Four markers of oxidative stress and antioxidant status were measured in serum for 61 women. Multiple imputation of missing data was used to generate values for the missing oxidative stress data. RESULTS: Thirty-two women had visually confirmed endometriosis at laparoscopy while 52 did not, including 22 undergoing tubal ligation and 30 with idiopathic infertility. There was a weak association between thiobarbituric acid-reactive substances (nmol/ml) and endometriosis, after adjusting for age, body mass index, current smoking, hormone use in the past 12 months, gravidity, serum vitamin E, serum estradiol, and total serum lipids (beta=1.18; 95% CI-0.04, 2.39). CONCLUSIONS: These results suggest that oxidative stress might play a role in the development and progression of endometriosis, which should be evaluated in larger studies.

Randomized clinical trial of a levonorgestrel-releasing intrauterine system and a depot GnRH analogue for the treatment of chronic pelvic pain in women with endometriosis.
Petta CA, Ferriani RA, Abrao MS, Hassan D, Rosa E Silva JC, Pdgaec S, Bahamondes L
Hum Reprod 2005 Mar 24;.
BACKGROUND: The objective of this multicentre randomized, controlled clinical trial was to compare the efficacy of a levonorgestrel-releasing intrauterine system (LNG-IUS) and a depot-GnRH-analogue in the control of endometriosis-related pain over a period of six months. METHODS: Eighty-two women, 18 to 40 years of age (mean 30 years), with endometriosis, dysmenorrhoea and/or CPP, were randomized using a computer-generated system of sealed envelopes into either LNG-IUS (n=39) or GnRH analogue (n=43) treatment groups at three university centres. Daily scores of endometriosis-associated CPP were evaluated using the Visual Analogue Scale (VAS), daily bleeding score was calculated from bleeding calendars, and improvement in quality of life was evaluated using the Psychological General Well-Being Index Questionnaire (PGWBI). The pain score diary was based on the VAS in which women recorded the occurrence and intensity of pain on a daily basis. A monthly score was calculated from the result of the sum of the daily scores divided by the number of days in each observation period. RESULTS: CPP decreased significantly from the first month throughout the six months of therapy with both forms of treatment and there

was no difference between the groups (P>0.999). In both treatment groups, women with stage III and IV endometriosis showed a more rapid improvement in the VAS pain score than women with stage I and II of the disease (P<0.002). LNG-IUS users had a higher bleeding score than GnRH-analogue users at all time points of observation with 34% and 71% of patients in the LNG-IUS and GnRH-analogue groups, respectively, reporting no bleeding during the first treatment month, and 70% and 98% reporting no bleeding during the sixth month. No difference was observed between groups with reference to improvement in quality of life. CONCLUSIONS: Both, the LNG-IUS and the GnRH-analogue were effective in the treatment of CPP-associated endometriosis, although no differences were observed between the two treatments. Among the additional advantages of the LNG-IUS is the fact that it does not provoke hypoestrogenism and that it requires only one medical intervention for its introduction every 5 years. This device could therefore become the treatment of choice for CPP-associated endometriosis in women who do not wish to conceive.

A predictive model for endometriosis.
Wolfler MM, Nagele F, Kolbus A, Seidl S, Schneider B, Huber JC, Tschugguel W
Hum Reprod 2005 Mar 10;.
BACKGROUND: Aromatase is the key enzyme in the process of estrogen biosynthesis from the precursor androgen. Recently, aromatase has been found to be aberrantly expressed in eutopic endometrium of patients suffering from endometriosis. This finding has prompted speculation about the contribution of this enzyme to the prediction of this disease. METHODS: We prospectively aimed to evaluate whether endometrial biopsy, prior to laparoscopy in symptomatic women to screen for the presence of aromatase by real-time RT-PCR and immunohistochemistry, combined with select patients' characteristics, is of value to predict endometriosis. RESULTS: Of 48 consecutive symptomatic and eligible patients, 25 (52.1%) exhibited endometriosis and 23 (47.9%) were disease-free. A multiple logistic regression model revealed that 95.5% of patients whose eutopic endometrium was found to be positive for aromatase mRNA as well as immunohistochemically detected protein and who were additionally suffering from moderate to severe dysmenorrhoea (visual analogue scale score >4/10) exhibited endometriosis at laparoscopy. CONCLUSIONS: These findings provide direct evidence that screening for eutopic endometrial aromatase in combination with clinical data could be of discriminative value in the prediction of disease.

Pathogenesis of irritable bowel syndrome: the mast cell connection.
Santos J, Guilarte M, Alonso C, Malagelada JR
Scand J Gastroenterol 2005 Feb;40(2):129-40.

Characterization of the alternating bowel habit subtype in patients with irritable bowel syndrome.
Tillisch K, Labus JS, Naliboff BD, Bolus R, Shetzline M, Mayer EA, Chang L
Am J Gastroenterol 2005 Apr;100(4):896-904.
BACKGROUND: Due to a wide range of symptom patterns, patients with irritable bowel syndrome (IBS) are often subgrouped by bowel habit. However, the IBS subgroup with alternating bowel habits (IBS-A) has been poorly characterized. OBJECTIVES: (i) To determine a set of bowel habit symptom criteria, which most specifically identifies IBS patients with an alternating bowel habit, (ii) to describe IBS-A bowel symptom patterns, and (iii) to compare clinical characteristics among IBS-A, constipation-predominant (IBS-C), and diarrhea-predominant IBS (IBS-D). METHODS: One thousand one hundred and two Rome I positive IBS patients were analyzed. Three sets of potential criteria for IBS-A were developed and compared by multirater Kappa test. Gastrointestinal, psychological, extraintestinal symptoms, and health-related quality of life were compared in IBS-A, IBS-C, and IBS-D using chi(2) test and analysis of variance (ANOVA). RESULTS: Stool consistency was determined to be the most specific criteria for alternating bowel habits. IBS-A patients reported rapid fluctuations in bowel habits with short symptom flares and remissions. There was a greater prevalence of psychological and extraintestinal symptoms in the IBS-A subgroup compared to IBS-C and IBS-D. No differences were seen between bowel habit subtypes in health-related quality of life. CONCLUSIONS: IBS-A patients have rapidly fluctuating symptoms and increased psychological comorbidity, which should be taken into account for clinical practice and clinical trials. (Am J Gastroenterol 2005;100:1-9).

What does the future hold for irritable bowel syndrome and the functional gastrointestinal disorders?
Drossman DA
J Clin Gastroenterol 2005 May-Jun;39(4):S251-6.
Our understanding of irritable bowel syndrome and the functional GI disorders has grown considerably over the last 15 years. In part this relates changes in their classification and definition from being due solely to motility disturbances, to being symptom based (eg, Rome criteria). This opened the door to the study of many other factors that contribute to the clinical expression of these disorders, including visceral hypersensitivity, sensitization, altered mucosal immunity, and dysfunction in brain-gut regulatory processes. New knowledge has been gained in areas of genetics, central nervous system and enteric nervous system

neurotransmitters of motility, sensitivity and secretion, the effect of altered mucosal inflammation on cytokine and paracrine activation, and neural sensitization, postinfectious disorders, the influence of psychologic stress on gut functioning via alterations in regulatory pathways (eg, hypothalamic-pituitary adrenal axis, or pain regulatory system like the cingulate cortex), improved accuracy of diagnosis using Rome II criteria plus "red flags" the institution of behavioral treatments, and the use of new pharmacologic treatments both at the gut and brain level. Future research will improve upon this new knowledge via basic and translational studies of neuropeptide signaling with new neurotransmitters, new knowledge on the mechanisms for central nervous system-enteric nervous system communication and dysfunction, and more advanced clinical research on education, communication skills and their effects on outcome, genetics, pharmacogenetics and genetic epidemiology, better understanding as to how certain psychosocial domains (eg, catastrophizing, abuse) affect symptom behavior and outcome, newer pharmacologic treatments, and the use of combined pharmacologic and behavioral treatment packages. I am pleased to have the opportunity to provide a personal perspective on what the future will be for irritable bowel syndrome and the other functional GI disorders. Having been involved in this field for almost 30 years, I have been fortunate to witness tremendous changes. The focus of this presentation is to address the advances that have recently occurred that set the stage for proposing future research to help move the field along and ultimately to help our patients.

Use of diet and probiotic therapy in the irritable bowel syndrome: analysis of the literature.
Floch MH
J Clin Gastroenterol 2005 May-Jun;39(4):S243-6.
GOAL:: The goal of this report is to review the use of dietary intake and probiotics in patients with irritable bowel syndrome (IBS) in published reports. BACKGROUND:: Dietary factors can be important in inducing symptoms that occur in patients with the IBS. Dietary intolerances, dietary allergies, specific food metabolites, and regular diet contents all may act as triggers and aggravate the symptoms of IBS; but when any of these mechanisms can be proven to cause the symptoms, then their elimination results in the resolution of that patient's IBS. METHODS:: Our previous review was updated. In addition, a careful Medline search was made for the years from 1975 to 2004 to evaluate human research reports on diet and probiotics in the IBS. Forty-six manuscripts were reviewed on diet and six were available on probiotic use in IBS. The most common dietary factor evaluated in the literature was bran, and the most common probiotic used was Lactobacillus plantarum. CONCLUSIONS:: Although investigations have shown that bran may be helpful in some patients, a complete review of the literature does not reveal conclusive evidence that diet therapy is effective in IBS. From the limited reports on probiotics, there appears to be a trend to decreasing symptoms. It is clear that much more prospective research is needed to study both dietary factors and probiotics in these areas.

Irritable bowel syndrome: a syndrome in evolution.
Lacy BE, Lee RD
J Clin Gastroenterol 2005 May-Jun;39(4):S230-42.
As a group, functional gastrointestinal disorders are the most common gastrointestinal disorder seen by both generalists and specialists. These disorders can be frustrating to both patients and physicians as they are usually chronic in nature and difficult to treat. These disorders are associated with frequent healthcare visits, the scheduling of multiple, expensive diagnostic tests, and the use of both over-the-counter and prescription medications. All of these factors lead to a significant economic burden to society. In addition, functional gastrointestinal disorders are associated with a reduction in quality of life for the patient. Irritable bowel syndrome (IBS) is the most common of the functional gastrointestinal disorders. This syndrome has been the focus of a large number of research studies over the past two decades. These studies have resulted in a number of significant changes in our definition of IBS. In addition, these research studies have produced considerable changes in our understanding of the etiology and pathogenesis of IBS. In this section, we will review some of the evolutionary changes that have occurred in IBS. We will discuss how the definition of IBS has changed, consider our evolving strategies to evaluate and diagnose IBS, and finally, provide a brief overview of treatment options for this common disorder.

Nerves, reflexes, and the enteric nervous system: pathogenesis of the irritable bowel syndrome.
Gershon MD
J Clin Gastroenterol 2005 May-Jun;39(4):S184-93.
The bowel exhibits reflexes in the absence of CNS input. To do so, epithelial sensory transducers, such as enterochromaffin (EC) cells, activate the mucosal processes of intrinsic (IPANs) and extrinsic primary afferent (sensory) neurons. EC cells secrete serotonin (5-HT) in response to mucosal stimuli. Submucosal IPANs, which secrete acetylcholine and calcitonin gene-related peptide, initiate peristaltic and secretory reflexes and are activated via "5-HT1P" receptors. Release of neurotransmitters is enhanced by 5-HT4

receptors, which are presynaptic and strengthen neurotransmission in prokinetic pathways. 5-HT3 receptors mediate signaling to the CNS and thus ameliorate cancer chemotherapy-associated nausea and the visceral hypersensitivity of diarrhea-predominant irritable bowel syndrome (IBS-D); however, because 5-HT3 receptors also mediate fast ENS neurotransmission and activate myenteric IPANs, they may be constipating. 5-HT4 agonists are prokinetic and relieve discomfort and constipation in IBS-C and chronic constipation. 5-HT4 agonists do not initiate peristaltic and secretory reflexes but strengthen pathways that are naturally activated. Serotonergic signaling in the mucosa and the ENS is terminated by a transmembrane 5-HT transporter, SERT. Mucosal SERT and tryptophan hydroxylase-1 expression are decreased in experimental inflammation, IBS-C, IBS-D, and ulcerative colitis. Potentiation of 5-HT due to the SERT decrease could account for the discomfort and diarrhea of IBS-D, while receptor desensitization may cause constipation. Similar symptoms are seen in transgenic mice that lack SERT. The loss of mucosal SERT may thus contribute to IBS pathogenesis.

Is there a relation between irritable Bowel syndrome and urinary stone disease?
Erdem E, Akbay E, Sezgin O, Doruk E, Canpolat B, Cayan S
Dig Dis Sci 2005 Mar;50(3):605-8.
Our aim was to investigate the role of renal colic, a clinical condition characterized by excruciating pain, in the etiopathogenesis of irritable bowel syndrome (IBS). Two groups of patients were enrolled in the study. Group I consisted of 59 patients (33 male and 26 female) with a median age of 41.9 (18 to 58) years. The patients in group I were admitted to our clinic with urinary stone disease and with a medical history of acute renal colic. Group II consisted of 55 patients (25 male and 30 female) with a median age of 40.1 (18 to 56) years, complaining of urologic abnormalities other than stone disease. IBS was diagnosed using Rome criteria. Metabolic analysis for stone disease was performed on patients in group I. The incidence of five metabolic abnormalities--low urine volume, hypercalciuria, hyperoxaluria, hyperuricosuria and hypocitraturia--in patients with and without irritable bowel disease was investigated. IBS was found in 16 of the 59 patients (27.1%) in group I and in 6 of the 55 patients (10.9%) in group II. The difference was statistically significant ($P < 0.05$). Relative risk of developing IBS was 2.48 times higher in patients with urinary stone disease than in those without stone disease. There was no statistically significant difference in the metabolic analysis of patients with and without IBS in group I. IBS causes great suffering. Urinary stone disease should be considered as an etiological factor during management of IBS patients. In the presence of gastrointestinal symptoms, a patient with a medical history of acute renal colic might be referred to a gastroenterologist.

Tegaserod is safe, well tolerated and effective in the treatment of patients with non-diarrhoea irritable bowel syndrome.
Fried M, Beglinger C, Bobalj NG, Minor N, Coello N, Michetti P
Eur J Gastroenterol Hepatol 2005 Apr;17(4):421-427.
OBJECTIVE: To evaluate the safety/tolerability and efficacy of tegaserod, a 5-HT4 receptor partial agonist, in the treatment of patients with non-diarrhoea irritable bowel syndrome (non-D-IBS) in Switzerland. METHODS: This was an 8-week, open-label, prospective, multicentre study. Patients (>/=18 years old) met the Rome II diagnostic criteria for IBS, excluding those with diarrhoea for >/=14 days in the previous 3 months. Details of IBS symptoms experienced in the preceding week were recorded at visit 1 (day 1). Eligible patients received 6 mg tegaserod twice daily for 8 weeks. Adverse events (AEs) and serious AEs were recorded, along with detailed assessment of diarrhoeal episodes. Efficacy assessments included the overall number and percentage of responders after 8 weeks' treatment. RESULTS: A total of 850 patients (72% women; mean age, 51.4 years) were enrolled, and 843 received at least one dose of tegaserod. AEs were reported in 38% of patients, of which 13% were drug-related. Diarrhoea occurred early during treatment (13% in the first week, 7% thereafter), was mild to moderate in severity, was transient and was resolved with continued treatment. In total, 208 patients left the study early, primarily due to AEs. Diarrhoea accounted for 68 of these discontinuations. Nine serious AEs were reported but these were not related to tegaserod treatment. Sixty-six percent of patients responded to tegaserod on the Subject's Global Assessment of relief after 8 weeks. Benefits were also seen across individual IBS symptoms. CONCLUSION: Tegaserod (6 mg twice daily) appears to be safe, well-tolerated and effective in the treatment of non-D-IBS over 8 weeks.

A prospective assessment of bowel habit in irritable bowel syndrome in women: defining an alternator.
Drossman DA, Morris CB, Hu Y, Toner BB, Diamant N, Leserman J, Shetzline M, Dalton C, Bangdiwala SI
Gastroenterology 2005 Mar;128(3):580-9.
BACKGROUND & AIMS: Irritable bowel syndrome (IBS) is subtyped as IBS with diarrhea (IBS-D) or IBS with constipation (IBS-C) based on Rome II guidelines. The remaining group is considered as having mixed IBS (IBS-M). There is no standard definition of an alternator (IBS-A), in which bowel habit changes over time. Our aim was to use Rome II criteria to prospectively assess change in bowel habit for more than 1 year to

understand IBS-A. METHODS: Female patients (n=317) with IBS entering a National Institutes of Health treatment trial were studied at baseline with questionnaires and 2-week daily diary cards of pain and stool frequency and consistency. Studies were repeated at the end of treatment (3 months) and at four 3-month intervals for one more year. Algorithms to classify subjects into IBS-D, IBS-C, and IBS-M groups used diary card information and modified Rome II definitions. Changes in bowel habit at 3-month intervals were then assessed using these surrogate diary card measures. RESULTS: At baseline, 36% had IBS-D, 31% IBS-M, and 34% IBS-C. Except for stool frequency, there were no differences between groups. While the proportion of subjects in each subgroup remained the same over the year, most individuals (more than 75%) changed to either of the other 2 subtypes at least once. IBS-M was the least stable (50% changed out by 12 weeks). Patients were more likely to transition between IBS-M and IBS-C than between IBS-D and IBS-M. Notably, only 29% switched between the IBS-D and IBS-C subtypes over the year. CONCLUSIONS: While the proportion of subjects in each of the IBS subtypes stays the same, individuals commonly transition between subtypes, particularly between IBS-M and IBS-C. We recommend that IBS-A be defined as at least one change between IBS-D and IBS-C by Rome II criteria over a 1-year period.

Origin of gas retention and symptoms in patients with bloating.
Salvioli B, Serra J, Azpiroz F, Lorenzo C, Aguade S, Castell J, Malagelada JR
Gastroenterology 2005 Mar;128(3):574-9.
BACKGROUND & AIMS: Patients reporting abdominal bloating exhibit impaired tolerance to intestinal gas loads. The aim of this study was to identify the gut compartment responsible for gas retention. METHODS: In 30 patients predominantly reporting abdominal bloating (24 with irritable bowel syndrome and 6 with functional bloating) and 22 healthy subjects, gas (nitrogen, carbon dioxide, and oxygen) was infused into the intestine for 2 hours while measuring rectal gas outflow. First, in 12 patients and 10 healthy subjects, gas transit (24 mL/min jejunal infusion labeled with 74 MBq bolus of 133 Xe) was measured by scintigraphy. Second, in groups of patients and healthy subjects, the effects of gas infusion (12 mL/min) in the jejunum versus ileum, jejunum versus cecum, and jejunum versus sham infusion (n=6 each) were compared by paired tests. RESULTS: In patients, total gut transit of gas was delayed (50% clearance time, 33 +/- 4 min vs 23 +/- 4 min in healthy subjects; P <.05) owing to impaired small bowel transit (50% clearance time, 20 +/- 2 min vs 12 +/- 3 min in healthy subjects; P <.05), whereas colonic transit was normal (50% clearance time, 13 +/- 2 min vs 11 +/- 2 min in healthy subjects; not significant). Furthermore, jejunal gas infusion in patients was associated with gas retention (329 +/- 81 mL vs 88 +/- 79 mL in healthy subjects; P <.05), whereas direct ileal or colonic infusion was not (61 +/- 103 mL and -143 +/- 87 mL retention, respectively). CONCLUSIONS: In patients reporting bloating, the small bowel is the gut region responsible for ineffective gas propulsion.

8 – FISTULAE

Functional outcomes of primary and secondary repairs of vesicovaginal fistulae via vaginal cuff scar excision.

Flynn MK, Peterson AC, Amundsen CL, Webster GD

Int Urogynecol J Pelvic Floor Dysfunct 2004 Nov-Dec;15(6):394-8; discussion 398. Epub 2004 Jun 2.

Hospital and office charts of patients who underwent vaginal cuff scar excision for vesicovaginal fistula (VVF) repair from February 1998 to December 2002 at our institution were reviewed. Preoperative demographics and fistula characteristics were gathered. Intraoperative data included use of tissue flaps, blood loss, OR time and anesthetic type. Postoperative review included time to discharge, successful repair and postoperative urinary or sexual dysfunction. Forty fistula repairs were identified. Ninety-three percent occurred after a hysterectomy and no subjects had a history of radiation. Forty-two percent had failed at least one surgical repair of their fistula and 12% had failed two or more attempted repairs. Twenty percent of the fistulae measured 1 cm or more in diameter and the remaining 80% were 5 mm or less. Peritoneal flaps and martius flaps were performed in 32% and 5%, respectively. Postoperatively, 100% of subjects were evaluated at 3 weeks when the suprapubic catheter was removed and 93% were evaluated at 3 months or later. All subjects were cured of their fistulae at last contact. At 3 months postoperatively, 94% percent denied any urinary dysfunction and 85% had resumed sexual intercourse. Two sexually active subjects reported mild deep dyspareunia. Transvaginal cuff scar excision is an effective method for the primary and secondary repair of vesicovaginal fistulae and does not appear to cause postoperative irritative voiding symptoms or dyspareunia.

[Recto-seminal fistula and cancer of the rectum]

Roupret M, Varkarakis J, Valverde A, Sebe P

Prog Urol 2004 Dec;14(6):1219-20.

The authors present a case of left epididymo-orchitis associated with rectal adenocarcinoma and suspected fistula between the left seminal vesicle and the rectum. This fistula was confirmed by pelvic computed tomography and surgical exploration. Treatment consisted of parenteral antibiotics and surgical drainage of the abscess associated with colorectal resection. This is an original case, as, retrospectively, the cancer of the rectum, diagnosed 4 days previously, was found to be responsible for the recto-seminal fistula and the seminal vesicle abscess.

Differentiation of Perianal Fistulas with Digital Subtraction Magnetic Resonance Fistulography.

Schaefer O, Lohrmann C, Kreisel W, Rasenack J, Ruf G, Hopt U, Langer M

Inflamm Bowel Dis 2005 Apr;11(4):383-387.

BACKGROUND:: Pelvic magnetic resonance imaging (MRI) is accurate in identifying perianal fistulas. The exact visualization of fistulous tracts and concomitant abscesses determine the type of treatment. To improve the detection of perianal fistulas, we studied digital subtraction MR-fistulography for tissue differentiation based on signal intensity measurements. METHODS:: This study included 75 patients with the clinical diagnosis of perianal fistula. All patients were analyzed by a thin-slice, high-resolution, fast low-angle shot 3-dimensional sequence in the axial plane before and after intravenous injection of gadobenate dimeglumine, followed by image subtraction. Operator-defined regions of interest were used to calculate signal intensities of the inflamed fibrous walls of fistulas, the common femoral artery, the internal and external sphincter muscles, and the gluteus muscle. The fistulas were classified according to Parks classification. RESULTS:: Based on signal intensity measurements in 75 patients with perianal fistulas, diagnosed by digital subtraction MR-fistulography, a significant differentiation between fistulous tracts and anatomic structures was possible. MRI identified 116 perianal fistulas (34 intersphincteric, 33 transsphincteric, 10 suprasphincteric, and 39 extrasphincteric) and 35 abscesses. CONCLUSIONS:: Digital subtraction MR-fistulography is a new, promising, noninvasive imaging technique for the detection of perianal fistulas and abscesses.

High Body Mass Index as a Possible Risk Factor for Pilonidal Sinus Disease in Adolescents.

Arda IS, Guney LH, Sevmis S, Hicsonmez A

World J Surg 2005 Mar 22;.

Pilonidal sinus disease (PSD) is common in adults, but it may also develop in adolescents. The intergluteal groove is a deep moist area in which broken hairs and foreign bodies can collect, often leading to infection. Only a few papers have been published considering PSD in children. For the present study, we retrospectively examined the data of operated patients with PSD. From that review, it appears that high body mass index (BMI) might be a risk factor for the development of PSD and its complications in older children. Fourteen young patients (12 males, 2 females, 12-18 years of age) underwent surgery for PSD. According to the BMI-for-age, eight of these patients (57, 1%) were overweight or obese. Five of them (35.8%) developed mild to moderate postoperative complications. Symptoms recurred in one patient (7.1%) whose BMI was

considered as overweight. In patients with normal weight no early or late complications developed. Our findings suggest that high BMI in adolescents is a significant risk factor in the development of both symptoms and complications of PSD after surgical treatment.

Treatment of Fistulas-in-Ano With Fibrin Sealant in Combination With Intra-adhesive Antibiotics and/or Surgical Closure of the Internal Fistula Opening.
Singer M, Cintron J, Nelson R, Orsay C, Bastawrous A, Pearl R, Sone J, Abcarian H
Dis Colon Rectum 2005 Mar 22;.
PURPOSE: The treatment of fistulas-in-ano with fibrin sealant injection has been moderately successful. Failures can be caused by persistent infection within the tract or early expulsion of the clot. In an attempt to improve the success rate, we examined three modifications of the sealant procedure: the addition of cefoxitin to the sealant, surgical closure of the primary opening, or both. METHODS: A prospective, randomized, clinical trial was performed in which patients were treated with Tisseel-VH ((R)) fibrin sealant according to previously published procedures. In addition, patients were randomized to receive intra-adhesive cefoxitin, surgical closure of the primary opening, or both modifications. Cefoxitin, 100 mg, was added to the sealant for patients randomized to receive intra-adhesive antibiotics. For the appropriate patients, the primary fistula opening was closed with a 3-0 absorbable suture. If fistulas failed to heal, patients were offered a single retreatment with sealant. RESULTS: Twenty-four patients were treated in the cefoxitin arm, 25 in the closure arm, and 26 in the combined arm. Median duration of fistulas was 12 months. Patients were followed for a mean of 27 months postoperatively. There was no postoperative incontinence or complications related to the sealant itself. Initial healing rates were 21 percent in the cefoxitin arm, 40 percent in the closure arm, and 31 percent in the combined arm (P = 0.35). One of five patients in the cefoxitin arm, one of seven patients in the closure arm, and one of six patients in the combined arm were successfully retreated; final healing rates were 25, 44, and 35 percent respectively (P = 0.38). CONCLUSIONS: Treatment of fistula-in-ano with fibrin sealant with closure of the internal opening was somewhat more successful than sealant with cefoxitin or the combination, however this did not achieve statistical significance. None of the three modifications were more successful than historic controls at our institution treated with sealant alone. Therefore, the addition of intra-adhesive cefoxitin, closure of the internal opening, or both are not recommended modifications of the fibrin sealant procedure.

9 – BEHAVIOUR, PSYCHOLOGY, SEXOLOGY

Contributions of physical and sexual abuse to women's experiences with chronic pelvic pain.
Poleshuck EL, Dworkin RH, Howard FM, Foster DC, Shields CG, Giles DE, Tu X
J Reprod Med 2005 Feb;50(2):91-100.
OBJECTIVE: To examine the roles of physical and sexual abuse in women with chronic pelvic pain using multi-dimensional pain assessment and to compare the chronic pelvic pain experiences of women with physical abuse to those of women with sexual abuse. STUDY DESIGN: Structured questionnaires were used to measure self-reported abuse, pain severity, psychological distress, physical functioning, interpersonalfunctioning, and coping in 63 women attending a tertiary care gynecologic clinic for diagnosis and treatment of chronic pelvic pain. RESULTS: Women with chronic pelvic pain who reported abuse demonstrated significantly more psychological distress than did women who reported no abuse, but there were no differences in pain severity, physical functioning, interpersonal functioning or coping. Women with physical abuse reported more overall psychological distress, depression, anxiety and somatization than women who reported no physical abuse. Women who reported sexual abuse showed more overall psychological distress and anxiety than women who reported no sexual abuse. While physical abuse was more consistently associated with psychological distress than was sexual abuse, both types of abuse were risk factors for distress. CONCLUSION: These results suggest that both physical and sexual abuse are associated with psychological distress in women with chronic pelvic pain but not with other domains of pain experience. Additional research to improve identification and treatment of women with both chronic pelvic pain and abuse is indicated.

Effect of Urinary Leakage on Sexual Function during Sexual Intercourse.
Kizilkaya Beji N, Yalcin O, Ayyildiz Erkan H, Kayir A
Urol Int 2005;74(3):250-255.
Aim: This study was planned to determine the effect of urinary leakage on sexual function during sexual intercourse. Methods: The study group included 32 incontinent women who had urinary leakage during sexual intercourse and the control group consisted of 60 women with no such problem. The Sexual History Form of Schover and Jensen was completed in face-to-face interviews in a private room. Results: When compared with the women without any problem, the women with urinary incontinence were 4.7 times less satisfied with their sexual life and their partners had ejaculation without full erection 3.1 times more. In order

to cope with the problem of urinary incontinence during coitus the women themselves adopted several methods. Trying to keep their partners unaware of the problem and deferring the intercourse were among the most frequently adopted methods. 43.7% of the study group indicated that this problem affected their sex life. Conclusions: The results of this study support the view that urinary leakage during coitus affects women's sex life adversely. Copyright (c) 2005 S. Karger AG, Basel.

Ethical issues in HIV.
Dhai A, Noble R
Best Pract Res Clin Obstet Gynaecol 2005 Apr;19(2):255-67. Epub 2004 Dec 13.
The number of people with HIV/AIDS continues to increase globally. Women, who represent the subgroup with the fastest rate of increase, are usually informed of their serostatus by the obstetrician/gynaecologist. As treatment of infected women raises a number of ethical issues, an understanding of the theoretical background for ethical decision making is requisite to ensure these problems are resolved within a morally appropriate framework. Vigorous debate has arisen from the tensions between the competing goals of HIV testing, third party disclosure, management of the critically ill HIV-infected woman, infertility management in the background of HIV/AIDS, and gender-based violence as cause or result of acquiring HIV infection. Women may be differently empowered economically, socially and culturally. What may be a satisfactory solution in the context of the USA and Europe may be far from ideal in that of the developing world.

Impact of vaginal surgery on sexuality and quality of life in women with urinary incontinence or genital descensus.
Helstrom L, Nilsson B
Obstet Gynecol Surv 2005 Apr;60(4):230-1.
One hundred eighteen women scheduled to undergo surgical treatment for urinary incontinence (n = 41) or genital descensus (n = 77) agreed to participate in a study of general health and well-being, urinary symptoms, and sexuality after vaginal surgery. Changes were measured by a questionnaire administered both 1 day before and again 1 year after surgery. One hundred one women (86%) completed the follow-up questionnaire.After 1 year, 19% of the women who underwent surgery for urinary symptoms reported that they regretted having the surgery compared with only 2% of those who were treated for vaginal prolapse (P = 0.05). Seventeen percent of the women in both groups said their prolapse symptoms were worse, but 50% of the incontinence group and 74% of those in the prolapse group reported an improvement in prolapse symptoms (P <0.001; and P <0.001 for change in scores from baseline). None of the women with incontinence reported a worsening of their symptoms of urinary frequency compared with 14% of the women who were treated for vaginal prolapse (P <0.001). Urinary frequency symptoms had improved for 82% of the incontinence group and 40% of the prolapse group (P <0.001; and P <0.00 for change).Forty-five of 88 sexually active women completed both questionnaires. Overall, the total score for sexual variables decreased. The decrease was greater for those treated for prolapse (P <0.05 for difference). A decrease in frequency of intercourse was seen in the incontinence group compared with a slight increase in the prolapse group (P <0.001). Dyspareunia remained essentially unchanged; however, the prolapse group reported a slight worsening of symptoms, which was not significant.There were no differences in quality-of-life scores before and after surgery.

[Sexual function after radical prostatectomy does not affect global patient satisfaction]
Descazeaud A, Chaskalovic J, Debre B, Zerbib M, Peyromaure M
Prog Urol 2004 Dec;14(6):1177-80.
OBJECTIVES: To evaluate the quality of life after retropubic radical prostatectomy (RP) and its impact on global patient satisfaction concerning the treatment received. PATIENTS AND METHODS: 142 questionnaires were sent to patients treated for a localized prostate cancer by RP alone, with a minimum follow-up of 2 years. The questionnaire was the validated French version of the "UCLA-Prostate Cancer Index". A question concerning global patient satisfaction with treatment was added. RESULTS: 102 questionnaires were returned and analysed. The mean age of the patients at the time of RP was 63.8 years and the mean follow-up was 48 months. Evaluation of global satisfaction showed that 35/102 (343%) patients were very satisfied, 45/102 (44.1%) were satisfied, 15/102 had no opinion, 4/102 (3.9%) were dissatisfied and 3/102 (29%) were very dissatisfied. General quality of life scores ranged from 72 to 87 on a scale from 1 to 100 (where 100 corresponds to the best quality of life). For specific quality of life, the mean scores for sexual function and dysfunction were 27.5 and 25.1, respectively. The mean scores for urinary function and dysfunction were 72.5 and 67.8, respectively. Urinary function scores and seven of the nine general quality of life items were significantly correlated with better global patient satisfaction, but sexual function was not related to global satisfaction. CONCLUSIONS: Although sexual function is markedly altered after RP, it does not affect global patient satisfaction with the treatment received. Urinary function and general quality of life are significantly correlated with global satisfaction.

10 – MISCELLANEOUS

Upper Level of the Spina Bifida Defect: How Good Are We?

Bruner JP, Tulipan N, Dabrowiak ME, Luker KS, Walters K, Burns P, Reed G
Obstet Gynecol Surv 2005 Apr;60(4):214-215.

Whether prenatal or postnatal surgery is performed to repair spina bifida, the most important predictor of neurologic function is the upper level of the myelomeningocele lesion. This retrospective study was designed to determine how accurately sonography estimates this level. Included were 171 consecutive cases of spina bifida that were repaired in utero. Most diagnoses were made during a midtrimester obstetric ultrasound examination. The upper level of the lesion was assigned by community physicians before referral in the second trimester and by the investigators at Vanderbilt University Medical Center during a preoperative workup. In 111 cases, the level was established by a plain film x-ray examination or magnetic resonance image after delivery. Corresponding levels were available for comparison from 35 community examinations and from 111 examinations done at Vanderbilt. All 3 assigned levels were available in 35 cases.Community-assigned levels agreed perfectly with the postdelivery findings in 26% of cases. In 66% of cases, the findings agreed within 1 level and in 80% within 2 levels. In 38% of cases, levels assigned at Vanderbilt agreed exactly with the postdelivery level. Agreement within 1 level was achieved in 78% of cases and within 2 levels in 96%. Upper levels assigned at Vanderbilt were significantly more accurate than community-assigned levels. In cases assigned a level at Vanderbilt, however, accuracy improved over time, indicating a significant learning effect. Only in later cases were the Vanderbilt findings substantially more accurate than those obtained by community physicians.Prenatal estimation of the upper level of spina bifida lesions is far from perfect even under the best conditions. Physicians will require continuing education in proper techniques of ultrasonography.

Delays and difficulties in the diagnosis of lower urologic injuries in the context of pelvic fractures.

Ziran BH, Chamberlin E, Shuler FD, Shah M
J Trauma 2005 Mar;58(3):533-7.

BACKGROUND: This article describes the characteristics of missed lower urologic injuries at a level 1 trauma center using advanced trauma life support protocols. Between 1991 and 1996, 635 patients were treated for traumatic pelvic fractures. For the 43 patients with missed urologic diagnoses, the pelvic fracture pattern, initial evaluation, average delay to diagnosis and treatment, reason for the delay, and manner in which the lower urinary tract injury was discovered and treated were identified. RESULTS: Of 43 patients with pelvic fracture, 10 (23%) with concomitant urologic injury had initially missed diagnoses. Delay in diagnosis and treatment averaged 19 hours for missed intraperitoneal bladder ruptures and 6.7 days for missed extraperitoneal bladder ruptures. CONCLUSION: The findings show that 23% of all bladder and urethral disruptions associated with pelvic fractures were missed at initial evaluation. The pelvic fracture pattern, in addition to physical examination, should direct the urologic evaluation for trauma patients.

Skill Assessment of Urological Laparoscopic Surgeons: Can Criterion Levels of Surgical Performance Be Determined Using the Pelvic Box Trainer?

Katz R, Hoznek A, Salomon L, Antiphon P, de la Taille A, Abbou CC
Eur Urol 2005 Apr;47(4):482-487. Epub 2005 Jan 1.

OBJECTIVES:: To correlate between surgeons' experience in urological laparoscopy and their performance of a set of laparoscopic tasks performed on a box trainer in the laparoscopic laboratory. METHODS:: 44 urologists participated in this study. A self-administrated questionnaire enquired about their experience in laparoscopy and they were divided to 4 categories: no experience, minimal experience, basic and advanced laparoscopists. Tests consisted of 4 tasks: passage of a ligature, intracorporeal knotting, intracorporeal suturing, and cutting a carton circle out of a square. All tests were supervised and time was recorded for each of the tasks. Histograms were plotted showing the mean time for performance of each task in each experience group. The Kruskal-Wallis analysis of variance was used to assess statistical significance. RESULTS:: Seven participants had no previous experience in laparoscopy and 14 had minimal experience. 15 had basic experience and 8 were advanced laparoscopists. No difference in performance was found between the no experience and minimal experience group and they were united and defined as beginners. A significant difference in performance was noted between the beginners, basic and advanced groups, especially when comparing beginners to advanced. Criterion level values of surgical performance drawn from this data were highly discriminative with sensitivity of 71-85% and specificity of 74.2%-88%. CONCLUSIONS:: We were able to differentiate between various levels of laparoscopic skills among the participating urologists. Values drawn from such studies could be the basis of criterion level values for technical laparoscopic performance during training programs and before granting laparoscopic privileges to urologists.

Vulvoperineal reconstruction with a sulcus gluteus flap.
Bistoletti P, Cravino T, Belardi MG
J Reprod Med 2005 Feb;50(2):123-9.
OBJECTIVE: To describe vulvoperineal reconstruction with a flap of the sulcus gluteus. STUDY DESIGN: Nonrandomized, prospective study in patients with vulvar cancer and vulvar intraepithelial neoplasia. After oncologic surgery, reconstruction with a sulcus gluteus flap was performed. The flap is supplied by the internal pudendal artery, and innervation is provided by the pudendal nerve. The tuber ischiale is the anatomic landmark for locating the pedicle. Follow-up was from 2 months to 2 years. Immediate and long-term complications were assessed. Aesthetic and functional results were analyzed and related to the quality of life and length of hospitalization. RESULTS: Vulvoperineal reconstruction was carried out in 6 patients who had undergone radical surgery. For reconstruction we used the sulcus gluteus flap in 4 unilateral cases and in 2 bilateral cases, for a total of 8 flaps. Cutaneous flaps of the sulcus gluteus provided good functional and aesthetic results. All flaps survived. There was no flap necrosis. The average length of hospitalization was 4 days. Complications were 2 breakdowns of the wound and 1 lymphocele. Postoperative discomfort was minimum. Patients were allowed to walk on day 6 and to sit on day 15. CONCLUSION: The advantages of this reconstruction are that it: is useful in cases of lymphadenectomy, is sensitive and maintains innervation, is distant enough from the receptor area to be used for large vulvar lesions, is able to hide the scar from the donor area in the sulcus gluteus, has a low complication rate, has a short hospitalization time and provides very good compliance with follow-up.

Adenocarcinoma within a paracoccygeal teratoma in an adult: report of a case.
Tulchinksy H, Tovar A, Gutman H
Surg Today 2005;35(3):259-62.
We report an unusual case of adenocarcinomatous transformation of a paracoccygeal teratoma (PCT) in a 44-year-old woman. The patient was referred to us for surgical treatment of a growing paracoccygeal mass. The findings of a magnetic resonance imaging scan were compatible with soft tissue malignancy. Using the posterior approach, we performed complete surgical removal with coccygectomy. Histological examination of the cystic mass revealed a mature teratoma containing primary adenocarcinoma. The patient has been followed up for 7 years and is free of disease. Because prognosis depends on complete excision, we emphasize the importance of clear-margin surgery, including en bloc removal of the coccyx.

Laparoscopic colorectal surgery in obese and nonobese patients: do differences in body mass indices lead to different outcomes?
Schwandner O, Farke S, Schiedeck TH, Bruch HP
Surg Endosc 2004 Oct;18(10):1452-6. Epub 2004 Aug 26.
BACKGROUND: The aim of this prospective study was to compare the outcome of laparoscopic colorectal surgery in obese and nonobese patients. METHODS: All patients who underwent laparoscopic surgery for both benign and malignant disease within the past 5 years were entered into the prospective database registry. Body mass index (BMI; kg/m(2)) was used as the objective measure to indicate morbid obesity. Patients with a BMI >30 were defined as obese, and patients with a BMI <30 were defined as nonobese. The parameters analyzed included age, gender, comorbid conditions, diagnosis, procedure, duration of surgery, transfusion requirements, conversion rate, overall morbidity rate including major complications (requiring reoperation), minor complications (conservative treatment) and late-onset complications (postdischarge), stay on intensive case unit, hospitalization, and mortality. For objective evaluation, only laparoscopically completed procedures were analyzed. Statistics included Student's t test and chi-square analysis. Statistical significance was assessed at the 5% level ($p < 0.05$ statistically significant). RESULTS: A total of 589 patients were evaluated, including 95 patients in the obese group and 494 patients in the nonobese group. There was no significant difference in conversion rate (7.3% in the obese group vs 9.5% in the nonobese group, $p > 0.05$) so that the laparoscopic completion rate was 90.5% ($n = 86$) in the obese and 92.7% ($n = 458$) in the nonobese group. The rate of females was significantly lower among obese patients (55.8% in the obese group vs 74.2% in the nonobese group, $p = 0.001$). No significant differences were observed with respect to age, diagnosis, procedure, duration of surgery, and transfusion requirements ($p > 0.05$). In terms of morbidity, there were no significant differences related to overall complication rates with respect to BMI (23.3% in the obese group vs 24.5% in the nonobese group, $p > 0.05$). Major complications were more common in the obese group without showing statistical significance (12.8% in the obese group vs 6.6% in the nonobese group, $p = 0.078$). Conversely, minor complications were more frequently documented in the nonobese group (8.1% in the obese group vs 15.5% in the nonobese group, $p = 0.080$). In the postoperative course, no differences were documented in terms of return of bowel function, duration of analgesics required, oral feeding, and length of hospitalization ($p > 0.05$). CONCLUSION: These data indicate that laparoscopic colorectal surgery is feasible and effective in both obese and nonobese patients. Obese

patients who are thought to be at increased risk of postoperative morbidity have the similar benefit of laparoscopic surgery as nonobese patients with colorectal disease.

Ulcerative colitis activity index: a useful prognostic factor for predicting ulcerative colitis outcome.
Gurel S, Kiyici M
J Int Med Res 2005 Jan-Feb;33(1):103-10.
We evaluated the usefulness of various parameters in predicting the prognosis of ulcerative colitis. The records of 73 patients with ulcerative colitis were examined retrospectively. Patients were divided into two groups according to whether they had received only 5-aminosalicylic acid (5-ASA; n = 26) or glucocorticoids and/or azathioprine with or without 5-ASA (n = 47). The disease extent, endoscopic activity and ulcerative colitis activity index (UCAI) before therapy were recorded, together with the disease outcome. No statistically significant differences in outcome were observed in relation to therapy group, disease extent or endoscopic activity. UCAI had a significant effect on outcome, however: patients with lower UCAI values were more likely to remain in remission and less likely to require urgent surgery or experience a fatal outcome than those with higher UCAI values. This difference was apparent in both treatment groups. Thus a high pre-treatment UCAI may indicate a worse outcome.

Colonic biopsy practice for evaluation of diarrhea in patients with normal endoscopic findings: results from a national endoscopic database.
Harewood GC, Olson JS, Mattek NC, Holub JL, Lieberman DA
Gastrointest Endosc 2005 Mar;61(3):371-5.
BACKGROUND: The colonic biopsy is the only reliable method for identification of microscopic colitis in patients with chronic diarrhea and normal endoscopic findings. METHODS: The Clinical Outcomes Research Initiative national endoscopic database was analyzed to determine the rate at which colonic biopsy specimens were obtained in patients undergoing colonoscopy for the evaluation of diarrhea with no visible mucosal abnormality. RESULTS: Between January 2000 and December 2003, 5565 unique adult patients underwent colonoscopy for evaluation of diarrhea without detection of any mucosal abnormality. Colonic mucosal biopsy specimens were obtained in 4410 (79.2%) of these patients. The rates at which biopsy specimens were obtained differed among the sites where colonoscopy was performed; biopsy specimens were obtained from more patients undergoing colonoscopy in university-affiliated settings (86.8%) compared with Veterans Affairs Medical Centers (VAMC) (78.5%) or community sites (78.6%) ($p < 0.001$). On multivariate analysis, biopsy specimens were more likely to be obtained in younger patients (OR 0.7: 95%CI[0.6, 0.8] for age >50 years vs. <50 years), women patients (OR 1.4: 95% CI[1.2, 1.6] in community setting; OR 4.1: 95% CI[1.6, 10.5] in VAMC setting), and patients seen in university-affiliated medical centers (university center OR 2.1: 95% CI[1.5, 3.0] vs. community setting). CONCLUSIONS: Biopsy specimens are obtained in four fifths of patients with diarrhea and normal colonoscopy findings to exclude microscopic colitis. Variation in biopsy practice exists among endoscopy site types and by gender. Clear guidelines are needed for the endoscopic approach to these patients.

Infliximab and Semen Quality in Men with Inflammatory Bowel Disease.
Mahadevan U, Terdiman JP, Aron J, Jacobsohn S, Turek P
Inflamm Bowel Dis 2005 Apr;11(4):395-399.
BACKGROUND:: Infliximab is effective for induction and maintenance of remission in reproductive age men with Crohn's disease. There is no available data on the effects of infliximab on semen quality. The aim of this study was to determine whether changes in semen quality occurred in men receiving infliximab. METHODS:: In this prospective study, each patient served as his own control. Patients completed general health and fertility questionnaires and were assessed for disease activity. Two semen analyses were completed before infusion with infliximab and 1 semen analysis was completed 1 week after infusion. Mean semen parameters before infusion were compared with postinfusion parameters by paired t tests. RESULTS:: Ten men completed the study. Seven were on maintenance infliximab (group 1) and 3 were receiving a first dose (group 2). Seven had Crohn's disease, 2 had indeterminate colitis, and 1 had ulcerative colitis. All group 1 patients were in remission. Group 2 patients had moderate or severe disease. In comparing pre- and postinfusion semen parameters in all 10 patients, there was a significant increase in semen volume ($P = 0.013$) after infusion with infliximab and a trend toward decreased sperm motility ($P = 0.061$). Group 1 had a significant increase in semen volume after infusion ($P = 0.039$) and a significant decrease in normal oval forms after infusion ($P = 0.038$). In comparing group 1 and group 2, there was a significant difference in sperm progression. CONCLUSIONS:: Infliximab therapy in men may decrease sperm motility and the number of normal oval forms. Whether these findings translate into impaired fertility is an area for further study.

Rectal complications after modern radiation for prostate cancer: a colorectal surgical challenge.

Larson DW, Chrouser K, Young-Fadok T, Nelson H
J Gastrointest Surg 2005 Apr;9(4):461-6.
The operative management of rectal complications after radiation for prostate cancer has been incompletely studied. Our aim was to determine a logical surgical approach to these severe rectal complications. From an institutional database, we identified 5719 patients who were evaluated between 1990 and 2003 with a history of prostate cancer that was treated with radiation. Fourteen patients were identified from this group who underwent operative intervention for complications stemming from radiation. Charts were retrospectively reviewed for demographics, prostate cancer treatment, rectal symptoms, diagnostic techniques, operative interventions, and outcome. Ten patients (71%) had documented rectourethral fistulas. An additional four patients (29%) had either transfusion-dependent rectal bleeding or intractable fecal incontinence. Using a surgical algorithm, we proceeded with fecal diversion alone (20%), urinary and fecal diversion alone (50%), and primary repair with or without a tissue flap and fecal diversion (29%) in the 14 affected patients. Symptomatic improvement and resolution of these three complications occurred in 12 (85%) of patients. However, only 2 (15%) were able to retain their intestinal continuity to achieve this outcome. The introduction of a step-wise approach to this problem has resulted in symptomatic resolution in the majority of patients. However, this is achieved at the cost of permanent fecal and sometimes urinary diversion.

Reappraisal of Surgical Treatment for Radiation Enteritis.
Onodera H, Nagayama S, Mori A, Fujimoto A, Tachibana T, Yonenaga Y
World J Surg 2005 Mar 22;.
Although radiation enteritis is a well-recognized sequel of therapeutic irradiation, the standard surgical method is not universally agreed upon. Not only the short-term effect but also the long-term effect after a surgical intervention has been fairly well reported. To reassess the surgical therapy for radiation enteritis, we retrospectively analyzed 48 patients (5 males and 43 females, mean age 58.6 years) who had been operated on in our department. These patients were divided into two types according to the time of surgery or the clinical manifestation, and operative methods were analyzed. Patient's status such as bowel movement, body weight, and serum albumin value after surgery were analyzed, together with the patients survival. Our surgical methods were small intestinal resection for the intestinal obstruction, and pull-through reconstruction for proctitis. Two patients died of multiple organ failure caused by perforated peritonitis irrespective of emergent operation. Although the overall morbidity was 21.7%, there was no leakage when bowels were anastomosed. Overall survival after radiation-related complication in patients without previous neoplastic disease recurrence was 89%, 79%, and 69%, at 1, 3, and 5 years after surgery, respectively. Bowel motility, serum albumin level, and body weight recovered gradually soon after the operation and reached satisfactory levels within 6 months. Our analysis showed that small bowel injury should be treated by generous resection of the affected bowel followed by careful anastomosis of the disease-free ends, while rectal resection is best dealt with by restorative proctectomy. This may provide a good quality of life and minimize major postoperative complications such as leakage.

Relationship between surgeon caseload and sphincter preservation in patients with rectal cancer.
Purves H, Pietrobon R, Hervey S, Guller U, Miller W, Ludwig K
Dis Colon Rectum 2005 Feb;48(2):195-204.
PURPOSE: The aim of this study was to determine by means of a national database whether higher surgeon caseload correlates with greater utilization of sphincter-sparing procedures than of abdominoperineal resections in treatment of patients with rectal cancer. METHODS: Patients with a primary International Classification of Diseases-9 diagnosis code of rectal cancer who underwent a sphincter-sparing procedure or abdominoperineal resection were selected from the 1997 Nationwide Inpatient Sample, a database that represents 20 percent of all U.S. community hospital discharges. Multivariable logistic regression models were used on a 20 percent sample of this database to estimate the risk-adjusted relationship between surgeon caseload volume and the odds of receiving a sphincter-sparing procedure. All models were adjusted for age, gender, race, hospital region, and patient comorbidity. RESULTS: The study population (n = 477) was 70.4 percent white and 57.9 percent male with an average age of 67.6 years. The mean Deyo comorbidity score was 7.0. Patients treated by surgeons in the highest-volume category (>/=10 rectal cancer surgeries per year) compared with those treated by surgeons in the lowest-volume category (1-3 rectal cancer surgeries per year) were significantly more likely to undergo a sphincter-sparing procedure, after adjustment for other covariates (odds ratio = 5.05; 95 percent confidence interval, 2.5-10.22). CONCLUSION: This analysis suggests that rectal cancer patients treated by high-volume surgeons are five times more likely to undergo sphincter-sparing procedures than those treated by low-volume surgeon. This has significant implications for those seeking a sphincter-preserving option for the treatment of their rectal cancer.

Manometric Effect of Topical Glyceryl Trinitrate and Its Impact on Chronic Anal Fissure Healing.

Thornton MJ, Kennedy ML, King DW
Dis Colon Rectum 2005 Mar 24;.
INTRODUCTION: The duration of physiologic action of topical glyceryl trinitrate in the management of anal fissure has been the source of some controversy. This study was designed to assess the manometric effect of glyceryl trinitrate on internal sphincter resting tone with continuous monitoring. METHODS: Twenty-seven patients with a chronic anal fissure were assessed with fissure, pain, bleeding, and continence scores. Twenty-two were randomized to 1 cm of topical 0.2 percent glyceryl trinitrate paste, applied to the lower anal canal. Five patients were randomized to 1 cm of water-soluble lubricating jelly to the lower anal canal. Continuous stationary six radial channel water perfusion anorectal manometry was performed for 5 minutes before treatment and then for a further 30 minutes. The 22 glyceryl trinitrate patients were then advised to apply topical 0.2 percent glyceryl trinitrate, three times daily, for eight weeks. Twenty-four hours after completing treatment, all baseline assessments were repeated. The lubricant jelly cohort was discharged from the study after the initial assessment. RESULTS: During the initial manometric assessment, 21 glyceryl trinitrate patients (95 percent) had 20 percent or more reduction in mean and maximum anal resting pressure after treatment. However, there was no statistical difference at 20 minutes compared with 0 minutes ($P > 0.1$). After eight-week treatment, 16 patients (73 percent) reported symptom resolution and 15 (67 percent) were found to be healed on examination. Clinical healing and resolution of symptoms positively correlated with a higher pretreatment maximum anal resting pressure in the mid anal canal ($P < 0.0001$), lower fissure score ($P < 0.0001$), and greater percentage reduction of the maximum resting pressure after application of glyceryl trinitrate ($P < 0.001$). The mean and maximum anal resting pressure at Week 8 was not significantly different from the baseline values ($P > 0.05$). During continuous manometry, the anal resting pressure did not significantly change in the patients treated with lubricating jelly. CONCLUSIONS: In those patients with a lower fissure score, a higher mid anal canal anal resting pressure, and a greater resting pressure reduction after glyceryl trinitrate application, a favorable clinical outcome can be expected with glyceryl trinitrate treatment. However, because the physiologic response has resolved in fewer than 20 minutes, the dosing regime should be reassessed.

Management of Anal Canal Cancer.
Sato H, Koh PK, Bartolo DC
Dis Colon Rectum 2005 Mar 24;.
PURPOSE: Chemoradiotherapy has replaced radical surgery as the initial treatment of choice for anal canal cancer. The roles of these therapeutic modalities are discussed and recommendations on management of anal canal cancer are made based on currently available evidence. Areas for further studies also are identified.METHODS: Literature on management of anal canal cancer from January 1970 to July 2003 obtained via MEDLINE was reviewed. Reports on anal margin cancers were excluded.RESULTS: Randomized, prospective, Phase 3 trials in Europe and the United States showed that chemoradiotherapy with 5-fluorouracil and mitomycin C was superior in local control, colostomy-free rate, progression-free survival, and cancer-specific survival compared with radiation alone. In larger tumors, the addition of mitomycin C to radiotherapy and 5-fluorouracil improves local control, colostomy-free, and disease-free survival but is associated with more acute hematologic toxicity. Chemoradiotherapy, including Cisplatin and 5-fluorouracil, appeared to be equal or superior to surgery as salvage therapy in patients with residual disease six weeks after initial nonsurgical treatment.CONCLUSIONS: To improve treatment outcomes and reduce treatment-related toxicities, further studies are required to elucidate the optimal drug combination and doses, optimal radiation field, total dose, and fraction sizes. Randomized, multicenter trials are needed to define the treatment protocol that provides the highest rate of sphincter preservation with acceptable toxicity. Few studies addressed the treatment of metastatic disease, which remains a major cause of mortality.

Probiotic Therapy to Prevent Pouchitis Onset.
Gionchetti P, Rizzello F, Poggioli G, Morselli C, Lammers KM, Campieri M
Dis Colon Rectum 2005 Mar 24;.