FORUM

In vivo studies of transdisciplinary scientific collaboration Lessons learned and implications for active living research.

Stokols D, Harvey R, Gress J, Fuqua J, Phillips K

Am J Prev Med 2005 Feb;28(2 Suppl 2):202-13.

The past 2 decades have witnessed a surge of interest and investment in transdisciplinary research teams and centers. Only recently, however, have efforts been made to evaluate the collaborative processes and scientific and public policy outcomes of these endeavors. This paper offers a conceptual framework for understanding and evaluating transdisciplinary research, and describes a large-scale national initiative, the National Institutes of Health Transdisciplinary Tobacco Use Research Centers (TTURCs) program, undertaken to promote cross-disciplinary scientific collaboration in the field of tobacco use science and prevention. A 5-year evaluation of collaborative processes and outcomes observed across multiple TTURC centers conducted during 1999 to 2004 is described. The findings highlight key contextual circumstances faced by participating centers (i.e., the breadth of disciplines and departments represented by each center, the extent to which members had worked together on prior projects, spatial proximity among researchers' offices, and frequency of their face-to-face interaction) that influenced their readiness for collaboration and prompted them to follow different pathways toward transdisciplinary integration. Implications of these findings for developing and evaluating future transdisciplinary research initiatives in the field of active living research are discussed.

1 – THE PELVIC FLOOR

Current indications for neuromodulation.

Daneshgari F, Moy ML

Urol Clin North Am 2005 Feb;32(1):37-40.

How sacral nerve stimulation neuromodulation works.

Leng WW, Chancellor MB

Urol Clin North Am 2005 Feb;32(1):11-8.

Neuromodulation in voiding dysfunction: a historical overview of neurostimulation and its application.

Fandel T, Tanagho EA

Urol Clin North Am 2005 Feb;32(1):1-10.

Neuromodulation: past, present, and future.

Steers WD

Urol Clin North Am 2005 Feb;32(1):xv-xvi.

Pelvic neuromodulation.

Daneshgari F

Urol Clin North Am 2005 Feb;32(1):xiii-xiv.

Pelvic neuromodulation.

Resnick MI

Urol Clin North Am 2005 Feb;32(1):xi.

Information from your family doctor. Pelvic floor muscle exercises.

Am Fam Physician 2005 Jan 15;71(2):329.

2 – FUNCTIONAL ANATOMY

Incontinence after brain glioma surgery: new insights into the cortical control of micturition and continence. Case report.

Duffau H, Capelle L

J Neurosurg 2005 Jan;102(1):148-51.

Cortical control of micturition and continence remains poorly understood. The authors report two cases of patients who presented with prolonged urinary disturbances after resection of a brain glioma. Accurate anatomofunctional correlations determined using postoperative magnetic resonance imaging support the following: 1) the implication of the posterior portion of the right anterior cingulate gyms in the perception of bladder sensation and maintenance of continence; 2) the involvement of the right anterior insula in bladder relaxation; and 3) the role of the right inferior frontal cortex in the decision concerning whether to initiate a micturition. On the basis of these results, a preliminary model of a cortical network associated with micturition

and continence is proposed.

Relation between anal electrosensitivity and rectal filling sensation and the influence of age.
Broens PM, Penninckx FM
Dis Colon Rectum 2005 Jan;48(1):127-33.
PURPOSE: The aim of this study was to assess the effect of age and sex on the rectal filling sensation and anal electrosensitivity and to explore the relation between anal electrosensitivity and the parameters of the rectal filling sensation. METHODS: Anal mucosal electrosensitivity and anorectal manometry, including the rectal filling sensation test were performed in 19 control subjects; 10 were younger than 60 years and 9 were older than that. Altogether, there were 11 men and 8 women. RESULTS: Anal electrosensitivity did not differ between the two age groups. Women had a significantly lower electrosensitivity 4 and 5 cm from the anal verge than men, as well as a significantly shorter anal high-pressure zone. The rectal filling sensation did not differ between sexes. In the older age group, the rectal volumes required to induce filling sensations were smaller than those observed in the younger age group, but rectal pressures were comparable; as a consequence, rectal compliance was lower in older subjects. Anal electrosensitivity at different anal levels did not correlate with the rectal volume or pressure parameters of successive rectal filling sensations. The pressure recorded in the proximal anal canal at the consecutive rectal filling sensations strongly correlated with the rectal balloon pressure needed to elicit them. CONCLUSIONS: The zones of high anal electrosensitivity and high pressure seem to coincide. The fact that both are shorter in females did not influence the parameters of the rectal filling sensation. Lower rectal volumes but comparable rectal pressures were needed to induce the rectal filling sensation in the older age group. Rectal sensation did not correlate with anal electrosensitivity, probably because the receptors are not stimulated by the type of anal stimulation used or because different receptors are involved. Hence, the rectal filling sensation test cannot be replaced by the simpler anal electrosensitivity test.

Rectal hyposensitivity: a disorder of the rectal wall or the afferent pathway? An assessment using the barostat.
Gladman MA, Dvorkin LS, Lunniss PJ, Williams NS, Scott SM
Am J Gastroenterol 2005 Jan;100(1):106-14.
OBJECTIVES: Rectal hyposensitivity (RH) relates to a diminished perception of rectal distension. Diagnosis on the basis of abnormal threshold volumes on balloon distension alone may be inaccurate due to the influence of differing rectal wall properties. The aim of this study was to investigate whether RH was actually due to impaired afferent nerve function or whether it could be secondary to abnormalities of the rectal wall. METHODS: A total of 50 patients were referred consecutively to a tertiary referral unit for physiologic assessment of constipation (Rome II criteria), 25 of whom had associated fecal incontinence. Thirty patients had RH (elevated threshold volumes on latex balloon distension), and 20 patients had normal rectal sensation (NS). Results were compared with those obtained in 20 healthy volunteers (HV). All subjects underwent standard anorectal physiologic investigation, and assessment of rectal compliance, adaptive response to isobaric distension at urge threshold, and postprandial rectal response, using an electromechanical barostat. RESULTS: Mean rectal compliance was significantly elevated in patients with RH compared to NS and HV ($p < 0.001$). However, 16 patients with RH (53%) had normal compliance. Intensity of the urge to defecate during random phasic isobaric distensions was significantly reduced in patients with RH compared to NS and HV ($p < 0.001$). The adaptive response at urge threshold was reduced in patients with RH compared to NS and HV ($p < 0.001$), although spontaneous adaptation at operating pressure was similar in all three groups studied ($p= 0.3$). Postprandially, responses were similar between groups. CONCLUSIONS: In patients found to have RH on simple balloon distension, impaired perception of rectal distension may be partly explained in one subgroup by abnormal rectal compliance. However, a second subgroup exists with normal rectal wall properties, suggestive of a true impairment of the afferent pathway. The barostat has an important role in the identification of these subgroups of patients.

Denonvilliers' fascia lies anterior to the fascia propria and rectal dissection plane in total mesorectal excision.
Lindsey I, Warren BF, Mortensen NJ
Dis Colon Rectum 2005 Jan;48(1):37-42.
PURPOSE: Opinion is divided whether Denonvilliers' fascia lies anterior or posterior to the anatomic fascia propria plane of anterior rectal dissection in total mesorectal excision. This study was designed to evaluate this anatomic relationship by assessing the presence or absence of Denonvilliers' fascia on the anterior surface of the extraperitoneal rectum in specimens resected for both nonanterior and anterior rectal cancer in males. METHODS: Surgical specimens were collected prospectively from males undergoing total mesorectal excision for mid and low rectal cancer, with a deep dissection of the anterior extraperitoneal rectum to the pelvic floor. Specimens were histopathologically analyzed using best practice methods for

rectal cancer. The anterior aspects of the extraperitoneal rectal sections were examined microscopically for the presence or absence of Denonvilliers' fascia. RESULTS: Thirty rectal specimens were examined. Denonvilliers' fascia was present in 12 (40 percent) and absent in 18 specimens (60 percent). Denonvilliers' fascia was significantly more frequently present when tumor involved (55 percent) rather than spared the anterior rectal quadrant (10 percent; difference between groups 45 percent; 95 percent confidence interval, 30-60 percent; P = 0.024, Fisher's exact test). CONCLUSIONS: When tumors were nonanterior, rectal dissection was conducted on fascia propria in the usual anatomic plane, and Denonvilliers' fascia was not present on the specimen. It was almost exclusively found in anterior tumors, deliberately taken by a radical extra-anatomic anterior dissection in the extramesorectal dissection plane. Denonvilliers' fascia lies anterior to the anatomic fascia propria plane of anterior rectal dissection and is more closely applied to the prostate than the rectum.

3 – DIAGNOSTICS

Pelvic floor muscle evaluation in incontinent patients.

Amaro JL, Moreira EC, De Oliveira Orsi Gameiro M, Padovani CR

Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 12;.

The aim of this study was to assess pelvic floor muscle (PFM) strength and perception and its correlation with stress urinary incontinence (SUI). One hundred and one women were divided into two groups according to the presence (G1=51 patients) or absence (G2=50 patients) of SUI. Subjective [urine stream interruption test (UST), visual survey of perineal contraction and transvaginal digital palpation to assess pelvic muscle contraction] and objective evaluations of pelvic floor muscles in all patients were performed (vaginal manometry). During the UST, 25.5% of G1 patients and 80% of G2 patients were able to interrupt the urine stream ($p<0.05$). Digital evaluation of pelvic muscular contraction showed higher strength in G2 than in G1 patients ($p<0.0001$). Perineometer evaluation of PFM strength was significantly higher in the continent group ($p<0.001$). Pelvic floor muscle weakness in incontinent patients demonstrates the importance of functional and objective evaluation of this group of muscles.

Does the size of the vaginal probe affect measurement of pelvic floor muscle strength?

Bo K, Raastad R, Finckenhagen HB

Acta Obstet Gynecol Scand 2005 Feb;84(2):129-33.

Background. The most commonly used method to measure pelvic floor muscle (PFM) strength is vaginal squeeze pressure. There are, however, several apparatuses available for this purpose, and sizes of the probes differ significantly. The aim of the present investigation was to assess whether the size of two commonly used vaginal probes influences measurement of PFM strength. Methods. Twenty female physical therapy students, mean age 25.1 years (range 21-38), participated in the study. All were able to contract the PFM, as assessed by means of vaginal palpation and observation of inward movement of the perineum. Two measuring devices with different lengths and diameters, the Peritron and the Camtech, were used in order to assess vaginal squeeze pressure. Each woman performed six contractions with each apparatus. Results. Mean maximum squeeze pressure for the whole group with the Camtech was 19.7 cm H(2)O (95% CI: 16.5-22.9) and with the Peritron 36.5 cm H(2)O (95% CI: 31.7-41.3), $P < 0.01$. Nine women preferred the Camtech, four preferred the Peritron, and seven did not have any specific preferences. Conclusions. Measurements of vaginal squeeze pressure differ depending on the vaginal probe used. Results from published studies using various probes should, therefore, not be compared or combined in systematic reviews or meta-analysis.

Is the leak point pressure alone an accurate indicator of intrinsic sphincteric deficiency?

Murphy M, Culligan PJ, Graham CA, Kubik KM, Heit MH

Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):294-7. Epub 2004 Jul 08.

The aim of this study was to determine the characteristics of women who meet the criteria for intrinsic sphincteric deficiency (ISD) on maximum urethral closure pressure (MUCP) but not on leak point pressure (LPP) measurement. We performed a cross-sectional chart review of every patient who underwent multichannel, microtransducer urodynamic testing in our center between 1994 and 1996 (n=423). From this population we culled a sub-population of women who fit into one of the following two groups: women with no evidence of ISD on MUCP or LPP and women with evidence of ISD on MUCP only. Logistic regression was used to identify independent predictors of group membership. Increasing age (>60.5 years) and a positive supine empty stress test were the only independent predictors of membership in the group of women with ISD on MUCP only. Knowledge of these risk factors may help clinicians in choosing appropriate pre-operative testing.

A new questionnaire for urinary incontinence diagnosis in women: Development and testing.

Bradley CS, Rovner ES, Morgan MA, Berlin M, Novi JM, Shea JA, Arya LA

Am J Obstet Gynecol 2005 Jan;192(1):66-73.

Objective The purpose of this study was to develop a questionnaire for urinary incontinence diagnosis in women and to test its reliability and validity, with incontinence specialists' clinical evaluations as the gold standard. Study design One hundred seventeen urogynecology outpatients with urinary incontinence symptoms completed the Questionnaire for Urinary Incontinence Diagnosis at enrollment and 1 week and 9 months later. Baseline clinical diagnoses were compared with Questionnaire for Urinary Incontinence Diagnosis diagnoses (criterion validity). Nine-month Questionnaire for Urinary Incontinence Diagnosis change scores were compared across treatment groups (responsiveness). Results Clinical diagnoses included stress (n = 15), urge (n = 26), and mixed urinary incontinence (n = 72). Internal consistency and test-retest reliability estimates were good. Sensitivity and specificity were 85% (95% CI, 75%, 91%) and 71% (95% CI, 51%, 87%), respectively, for stress urinary incontinence and 79% (95% CI, 69%, 86%) and 79% (95% CI, 54%, 94%), respectively, for urge urinary incontinence. The Questionnaire for Urinary Incontinence

Diagnosis correctly diagnosed urinary incontinence type in 80% of subjects. Questionnaire for Urinary Incontinence Diagnosis Stress and Urge scores decreased significantly in treated subjects. Conclusion The Questionnaire for Urinary Incontinence Diagnosis, a new 6-item questionnaire for female urinary incontinence type diagnosis, is reliable and able to diagnose stress urinary incontinence and urge urinary incontinence in a referral urogynecology patient population with accuracy.

Changes in urethral function with bladder filling in the presence of urodynamic stress incontinence and detrusor overactivity.
Chaliha C, Digesu GA, Hutchings A, Khullar V
Am J Obstet Gynecol 2005 Jan;192(1):60-5.
Decreases in functional urethral length and pressure transmission ratios with bladder filling in those women with detrusor overactivity are at variance with the normal physiologic response to bladder filling, which suggests that urethral function is affected by the presence of abnormal detrusor activity and that the valid assessment of urethral function may not be possible if the detrusor overactivity is not treated.

Patient perception of videourodynamic testing: a questionnaire based study.
Scarpero HM, Padmanabhan P, Xue X, Nitti VW
J Urol 2005 Feb;173(2):555-9.
PURPOSE: We determined the degree of anxiety, embarrassment and discomfort anticipated by patients before undergoing videourodynamics and compared the results to the actual degrees experienced by patients. In addition, we compared these variables between men and women, and younger and older patients. MATERIALS AND METHODS: All patients undergoing urodynamics for the first time were given a 2 part questionnaire. Patients with neurological disease or those requiring an indwelling or intermittent catheter were excluded. Part 1 given immediately prior to the test contained 5 questions regarding expected anxiety, pain, embarrassment, apprehension regarding x-ray exposure and preparedness. Part 2 given immediately after testing contained 5 questions comparing anticipated to actual overall experience, pain and embarrassment, preparation and whether the patient would undergo testing again. Each question had a 5 point scale. RESULTS: A total of 78 men and 88 women respondents completed the questionnaires. Most (greater than 95% per question) expected no to moderate anxiety, pain, embarrassment and apprehension. This did not vary with age, although more women anticipated greater embarrassment and more men expected little or no embarrassment ($p < 0.001$). After testing most respondents (greater than 90% per question) thought that the test was the same or better than expected and it was associated with an expected or less than expected level of pain and embarrassment. This did not vary between the sexes but more younger individuals found that the test experience was worse than expected, while more older individuals found that it was better than expected. Of the patients 95% would undergo urodynamic testing again if medically indicated. CONCLUSIONS: Videourodynamics is well tolerated and is associated with only minimal to moderate degrees of anxiety, discomfort and embarrassment. A suspected lack of tolerance should not be a barrier to performing medically indicated urodynamic testing.

Endosonography of the anal sphincter in women of different ages and parity.
Starck M, Bohe M, Fortling B, Valentin L
Ultrasound Obstet Gynecol 2005 Feb;25(2):169-76.
OBJECTIVES: To obtain reference data representative of normal findings at anal endosonography in pregnant and non-pregnant women. To determine intraobserver and interobserver agreement in the detection of endosonographic anal sphincter defects in asymptomatic women. METHODS: Twenty-five non-pregnant nulliparous women and 25 non-pregnant parous women (age range, 20-67 years) and 47 pregnant women (age range, 21-39 years) underwent anal manometry and anal endosonography. The endosonographic internal and external sphincter thickness and sphincter length were measured online. Endosonographic sphincter defects were measured and classified offline from videotapes by two independent examiners using an endosonographic defect score ranging from 0 (no defect) to 16 (maximal defect), the score taking into account the location and the longitudinal and circumferential extension of the defect. RESULTS: Endosonographic sphincter thickness and length did not differ between non-pregnant nulliparous and parous women and did not change substantially with age. The anal sphincter was thicker and the anal resting pressure area and manometric sphincter length were greater in pregnant than in non-pregnant women of the same age (20-39 years). There was good intra- and interobserver agreement with regard to detection of endosonographic anal sphincter defects (kappa >/= 0.70). Eighteen (19%) women had endosonographic sphincter defects but in only four (4%; 4/97) cases were they moderate or large (defect score, 7-10). Ten (20%) of the non-pregnant women reported minor gas incontinence and one reported minor incontinence for both gas and liquid stool. The frequency of incontinence did not differ between women with and without sphincter defects. CONCLUSIONS: Reference data representative of normal findings at anal endosonography have been established for non-pregnant women and for nulliparous women

in the third trimester of pregnancy. Small endosonographic sphincter defects and minor gas incontinence are common in women without known sphincter trauma. They seem to be unrelated to each other and may be regarded as normal variants. Copyright (c) 2005 ISUOG. Published by John Wiley & Sons, Ltd.

Comparison of magnetic resonance imaging colonography with conventional colonoscopy for the assessment of intestinal inflammation in patients with inflammatory bowel disease: a feasibility study.

Schreyer AG, Rath HC, Kikinis R, Volk M, Scholmerich J, Feuerbach S, Rogler G, Seitz J, Herfarth H
Gut 2005 Feb;54(2):250-6.

AIM: Magnetic resonance imaging (MRI) based colonography represents a new imaging tool which has mainly been investigated for polyp screening. To evaluate this approach for patients with inflammatory bowel disease (IBD), we compared MRI based colonography with conventional colonoscopy for assessing the presence and extent of colonic inflammation. PATIENTS AND METHODS: In 22 consecutive patients with suspected or known IBD, MRI colonography was performed immediately before conventional colonoscopy. After bowel cleansing, a T1 positive contrast agent was applied rectally. In addition to T2 weighted sequences, T1 weighted two dimensional and three dimensional Flash acquisitions as well as volume rendered virtual endoscopy were performed. All images were evaluated with regard to typical MRI features of inflammation. The results were compared with colonoscopy findings. RESULTS: Distension and image quality was assessed as good to fair in 97.4% of all colonic segments. Only four of 154 segments were considered non-diagnostic. With colonoscopy serving as the gold standard, the sensitivity for correctly identifying inflammation on a per segment analysis of the colon was 31.6% for Crohn's disease (CD) and 58.8% for ulcerative colitis (UC). In CD, in most cases mild inflammation was not diagnosed by MRI while in UC even severe inflammation was not always depicted by MRI. Virtual endoscopy did not add any relevant information. CONCLUSION: MRI based colonography is not suitable for adequately assessing the extent of colonic inflammation in patients with IBD. Only severe colonic inflammation in patients with CD can be sufficiently visualised.

Can three-dimensional endoanal ultrasonography detect external anal sphincter atrophy? A comparison with endoanal magnetic resonance imaging.

West RL, Dwarkasing S, Briel JW, Hansen BE, Hussain SM, Schouten WR, Kuipers EJ
Int J Colorectal Dis 2005 Jan 22;.

PURPOSE: Anal sphincter atrophy is associated with a poor clinical outcome of sphincter repair in patients with faecal incontinence. Preoperative assessment of the sphincters is therefore relevant. External anal sphincter (EAS) atrophy can be detected by endoanal magnetic resonance imaging (MRI), but not by conventional endoanal ultrasonography (EUS). Three-dimensional EUS allows multiplanar imaging of the anal sphincters and thus enables more reliable anal sphincter measurements. The aim of the present study was to establish whether 3D EUS measurements can be used to detect EAS atrophy. For this purpose 3D EUS measurements were compared with endoanal MRI measurements. METHODS: Patients with symptoms of faecal incontinence underwent 3D EUS and endoanal MRI. Internal anal sphincter (IAS) and EAS defects were assessed on 3D EUS and endoanal MRI. EAS atrophy was determined on endoanal MRI. The following measurements were performed: EAS length, thickness and area. Furthermore, EAS volume was determined on 3D EUS and compared with EAS thickness and area measured on endoanal MRI. RESULTS: Eighteen parous women (median age 56 years, range 32-80) with symptoms of faecal incontinence were included. Agreement between 3D EUS and endoanal MRI was 61% for IAS defects and 88% for EAS defects. EAS atrophy was seen in all patients on endoanal MRI. Correlation between the two methods for EAS thickness, length and area was poor. In addition, correlation was also poor for EAS volume determined on 3D EUS, and EAS thickness and area measured on endoanal MRI. CONCLUSION: Three-dimensional EUS and endoanal MRI are comparable for detecting EAS defects. However, correlation between the two methods for EAS thickness, length and area is poor. This is also the case for EAS volume determined on 3D EUS and EAS thickness and area measured on endoanal MRI. Three-dimensional EUS can be used for detecting EAS defects, but no 3D EUS measurements are suitable parameters for assessing EAS atrophy.

Simple ultrasound evaluation of the anal sphincter in female patients using a transvaginal transducer.

Timor-Tritsch IE, Monteagudo A, Smilen SW, Porges RF, Avizova E
Ultrasound Obstet Gynecol 2005 Feb;25(2):177-83.

OBJECTIVE: Fecal incontinence affects 0.2% of women aged 15-64 years and about 1.3% of women over 64 years. Most cases are related to instrumental deliveries affecting the anal sphincter complex. We propose a simple technique using the generally available transvaginal transducer to evaluate the anal sphincter complex. METHODS: Ninety-two patients underwent ultrasound examination. Group I consisted of 53 nulliparous patients. In Group II there were six patients with normal spontaneous vaginal deliveries without

episiotomies. In Group III there were 14 patients with vaginal deliveries and one to three episiotomies but no lacerations. In Group IV there were nine postpartum patients with recently repaired (48 h to 3 weeks) third- and fourth-degree lacerations. All women in Groups I-IV were asymptomatic. Group V consisted of 10 patients symptomatic for fecal incontinence. We used a vaginal probe (5-9-MHz) with the footprint placed in the fourchette pointing towards the anus in a transverse and then in a median (sagittal) plane. If seen, the combined internal and external anal sphincter thickness at the 12 o'clock location was measured. We visualized normal star-shaped mucosal folds on the transverse section and described the sonographic anatomy in both planes. RESULTS: The mean sphincter thickness measured at 12 o'clock in Group I was 2.3 (range, 1.0-4.7) mm, in Group II it was 2.9 (range, 2.4-3.4) mm, and in Group III it was 2.3 (range, 1.0-3.7) mm. The differences between these three groups were not significant. Patients from Group IV showed thinning or discontinuous sphincter anatomy at the 12 o'clock position. All symptomatic patients from Group V showed abnormal sphincter anatomy, and the normal star-like appearance of the anal mucosa on the transverse section was deformed, radiating from the point of the sphincter damage. Four of the 10 patients in this group underwent surgical repair. In these patients the sonographic findings were confirmed. CONCLUSIONS: The images obtained using this imaging modality show the sphincter muscle anatomy as well as the possible pathology. Due to its simplicity the technique can be applied in any place where a vaginal transducer is available. Copyright (c) 2005 ISUOG. Published by John Wiley & Sons, Ltd.

4 – PROLAPSES

Use of porcine small intestinal submucosa in the surgical treatment of recurrent rectocele in a patient with Ehlers-Danlos syndrome type III.

Sardeli C, Axelsen SM, Bek KM

Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 12;.

Ehlers-Danlos syndrome (EDS) is a heterogeneous group of connective tissue disorders involving various organ systems. We report the case of a female patient with Ehlers-Danlos syndrome type III (EDS III) presenting with a recurrent rectocele in whom porcine small intestinal submucosa mesh was used successfully to correct the defect in the rectovaginal fascia.

Risk factors for mesh erosion after transvaginal surgery using polypropylene (Atrium) or composite polypropylene/polyglactin 910 (Vypro II) mesh.

Achtari C, Hiscock R, O'reilly BA, Schierlitz L, Dwyer PL

Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 19;.

The objective of this study was to identify the risk factors associated with the occurrence of mesh erosion (ME) during the first 6 post-operative months in patients having undergone transvaginal repair of pelvic organ prolapse (POP) with Atrium or Vypro II mesh. We retrospectively reviewed the records of 198 consecutive patients who underwent vaginal reconstructive surgery reinforced either by Atrium or Vypro II mesh between February 1999 and July 2003. Univariable and multivariable logistic regression was performed to assess associations between measured covariates and ME. Fourteen patients [7.1%, 95% confidence interval (CI): 3.9-11.6] developed vaginal ME. We found that, in the Vypro II mesh patients, the surgeon experienced in the technique had less erosions than less experienced surgeons (2.9 vs 15.6%, p=0.02). There was no statistically significant difference between the monofilament polypropylene (Atrium) and the composite polypropylene/polyglactin 910 (Vypro II) mesh (7.2 vs 6.9%, p=0.41) when adjusted for surgeon experience and patient age. There was no association between mesh type (Atrium or Vypro II) and vaginal ME following transvaginal repair of POP. Surgeon experience and patient age were associated with ME.

Anterior enterocele: a report of three cases.

Tulikangas PK, Lukban JC, Walters MD

Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):350-2. Epub 2004 Jun 03.

Anterior enterocele is an uncommon finding in patients with pelvic organ prolapse. We reviewed 490 consecutive operations for pelvic organ prolapse . Three anterior enteroceles were identified in a series of 193 enterocele repairs (1.6%). The presentation and treatment of each of these patients is reviewed.

Severity of pelvic organ prolapse associated with measurements of pelvic floor function.

Ghetti C, Gregory WT, Edwards SR, Otto LN, Clark AL

Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 20;.

This study tested the hypothesis that clinical measurements of the superficial perineum and of pelvic floor muscle (PFM) function correlate with the severity of pelvic organ prolapse. This retrospective cross-sectional study assessed 1037 women in an academic urogynecologic practice. Greatest descent of prolapse, by the Pelvic Organ Prolapse Quantification system, was correlated with two assessments of levator function-the Oxford grading scale and levator hiatus (LH) size measured by digital examination. Correlations were

calculated using Pearson's correlation for continuous variables and Kendall's tau-b. Severity of prolapse correlated moderately with genital hiatus (GH) (r=0.5, p<0.0001) and with LH (transverse r=0.4, p<0.0001; longitudinal r=0.5, p<0.0001), but weakly with the Oxford grading scale (r=-0.16, p<0.0001). LH correlated with GH (r=0.5, p<0.0001) but not with perineal body (r=0.06, p=0.06). Both GH and LH size are associated with the severity of prolapse. LH size correlates more strongly to prolapse severity than assessment of PFM function by the Oxford grading scale.

Evolution of the female pelvis and relationships to pelvic organ prolapse.
Schimpf M, Tulikangas P
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 15;.
The female pelvis provides support for the lower limbs as well as for the gastrointestinal tract, the bladder, and the reproductive organs. It must also serve as a passageway for defecation, urination, and, possibly, delivery of an infant. The bones, ligaments, and muscles of the human female pelvis have evolved from our early ancestors. Pelvic organ prolapse may occur because of the limitations involved with adapting the pelvic bones, muscles, and ligaments previously used for other purposes into a supportive role. Here we review these changing roles and functions of nonhuman primate and human female anatomy.

Is the pelvic organ prolapse quantification system (POPQ) being used? A survey of members of the International Continence Society (ICS) and the American Urogynecologic Society (AUGS).
Auwad W, Freeman RM, Swift S
Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):324-7. Epub 2004 May 18.
The authors performed a web-based questionnaire survey of 667 members of the ICS and AUGS to determine the current use of the pelvic organ prolapse quantification (POPQ) system by members of the professional societies which have advocated its use. Three hundred and eighty (57%) gynecologists responded. This international survey shows that only 40.2% of ICS and AUGS members who responded routinely use the POPQ system in their clinical practice and provides information on the most common reasons for not using it. The results highlight some of the concerns regarding the complex nature of the system and its acceptance and use by specialists worldwide. It also suggests the need for a simplified version of the classification system that is user-friendly and can be adopted by all practitioners.

Randomized study on surgical treatment for vaginal prolapse.
Thompson PK
Am J Obstet Gynecol 2005 Feb;192(2):658.

The expression and function of the endothelin system in contractile properties of vaginal myofibroblasts of women with uterovaginal prolapse.
Poncet S, Meyer S, Richard C, Aubert JD, Juillerat-Jeanneret L
Am J Obstet Gynecol 2005 Feb;192(2):426-32.
Objective The endothelin-1 system regulates (myo)fibroblast contraction in wound healing. Our aim was to determine endothelin-1 system expression and function in contractile properties of vaginal myofibroblasts of women with uterovaginal prolapse. Study design Cultures of alpha-smooth muscle actin-positive myofibroblasts that were established at the time of repair surgery for prolapse (n = 30; mean age, 56 +/- 14 years) were analyzed and compared for their expression of the endothelin-1 system and contractile properties to myofibroblasts from primiparous women. Results Myofibroblasts expressed the complete endothelin system but did not secrete endothelin-1. Endothelin-1 binding was mediated exclusively by the endothelin B-receptor. In 3-dimensional collagen gels, spontaneous contraction of myofibroblasts from estrogen-treated women with prolapse was statistically significantly lower than from young primiparous women. Exogenous addition of endothelin-1 decreased the spontaneous contraction of myofibroblasts. Conclusion Genital myofibroblasts of women with uterovaginal prolapse are poorly contractile, and endothelin-1 further decreases vaginal myofibroblast contraction, which is opposite to observations in skin myofibroblasts.

Laparoscopic sacral colpopexy approach for genito-urinary prolapse: experience with 363 cases.
Rozet F, Mandron E, Arroyo C, Andrews H, Cathelineau X, Mombet A, Cathala N, Vallancien G
Eur Urol 2005 Feb;47(2):230-6.
OBJECTIVE:: To evaluate the surgical outcome, complications and benefits of laparoscopic double promonto-fixation for patients with pelvic prolapse. METHODS:: Women with genito-urinary prolapse underwent a transperitoneal placement of a 100% polyester mesh on the anterior vaginal wall and a posterior mesh on the levator ani muscle. Both of these were anchored to the sacral promontory. A TVT was placed simultaneously in patients who had concurrent stress urinary incontinence. RESULTS:: A total of 363 patients were operated upon between 1996 and 2002. Their mean age was 63 (range 35-78), average

follow-up was 14.6 months, the mean operating time was 97minutes. There were 8 conversions due to anesthetic or surgical difficulties. Follow up was done by a postal questionnaire and physical examination at 6 months and then yearly. 96% were satisfied with the results of their operation and no patients complained of sexual dysfunction. There was a 4% recurrence rate of prolapse, 3 vaginal erosions, 2 urinary retentions that required TVT section, 1 bowel incarcerations, 1 spondylitis and 2 mesh infection. CONCLUSIONS:: Laparoscopic promonto-fixation is feasible and highly effective technique that offers good long-term results with complication rates similar to open surgery, with the added benefits of minimally invasive surgery.

Infected abdominal sacrocolpopexies: diagnosis and treatment.
Mattox TF, Stanford EJ, Varner E
Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):319-23. Epub 2004 May 14.
The abdominal sacrocolpopexy is an excellent procedure to surgically treat vaginal vault prolapse. A synthetic graft is often used to support the vaginal apex, but has the potential to become infected or erode, requiring its removal or revision. The purpose of this paper is to report our experience in the management of patients with infected synthetic grafts after abdominal sacrocolpopexy. A review of the patient databases from three specialty gynecology centers was performed from March 1996 to June 2002. Only patients with an infected graft after an abdominal sacrocolpopexy were included in the study; patients with either suture or graft erosion responding to conservative treatment were excluded. Twenty-two women, ages 37-73 years, developed infection of the synthetic graft after an abdominal sacrocolpopexy (1-60 months after their initial surgery, mean 8.8 months). The infected materials included polytetrafluoroethylene (PTFE, Goretex, n =15) and polypropylene (n=7). Nine of the 15 PTFE meshes and four of the seven polypropylene meshes were placed at the time of a contaminated case (abdominal hysterectomy [n=12], colon resection [n=1]). Eighteen (82%) of the infected grafts involved braided permanent suture to attach the graft to the vaginal wall, monofilament/non-braided permanent suture was used in three patients, and suture type could not be determined in one. All graft removals were attempted vaginally, and this was successful in 16 cases (73%). Two patients experienced significant bleeding: the first patient required an emergency laparotomy and the second patient's bleeding was controlled with packing. A rectovaginal fistula occurred 3 weeks postoperatively in one patient. Synthetic graft infection should be considered as the differential diagnosis in a patient who has undergone an abdominal sacrocolpopexy. Transvaginal removal is preferred, but is fraught with potentially serious complications. The use of braided permanent sutures to affix the graft to the vagina may be associated with mesh infections.

Translevator posterior intravaginal slingplasty: anatomical landmarks and safety margins.
Smajda S, Vanormelingen L, Vandewalle G, Ombelet W, Jonge ED, Hinoul P
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 27;.
The posterior intravaginal sling is a new tension-free needle suspension technique. It is used for the treatment of middle compartment (vaginal vault or uterine) prolapse. The Prolene sling suspends the vagina at the upper border of level II support as described by DeLancey (Am J Obstet Gynecol 166:1717, 1992). Human cadaveric dissections were undertaken to explore the pertinent anatomy that is involved when using this blind needle technique. Pre-dissected cadaveric material was used to obtain didactic illustrations of the anatomy of the procedure. Description of the surgical technique using anatomical landmarks and relative distances of the needle to these landmarks will improve the surgeon's visual understanding of the procedure. The measurements obtained demonstrate that the needle stays at a minimal distance of 4 cm away from the major (pudendal) vessels that could potentially cause life-threatening haemorrhage.

Is routine pathologic evaluation of hemorrhoidectomy specimens necessary?
Lemarchand N, Tanne F, Aubert M, Benfredj P, Denis J, Dubois-Arnous N, Fellous K, Ganansia R, Senejoux A, Soudan D, Puy-Montbrun T
Gastroenterol Clin Biol 2004 Aug-Sep;28(8-9):659-61.
AIM: To confirm that systematic histological study of hemorrhoidectomy specimens is useless, as is proposed by the French Society of Coloproctology (Societe Nationale Francaise de Colo-Proctologie) under the sponsorship of the French National Health Accreditation and Evaluation Agency (Agence Nationale d'Accreditation et d'Evaluation en Sante). METHODS: Retrospective histological analysis of hemorrhoidectomy specimens obtained in a coloproctology unit between January 1, 1985 and December 31, 2001. RESULTS: We found 56 histological abnormalities (0.69%) among 8153 hemorrhoidectomy specimens considered normal at gross examination, with three cases of intraepithelial neoplasia of the anal canal (0.04%) and four cases of severe dysplasia (0.05%). Specimens associated with anal fissure (N = 906) or suppuration (N = 610) did not display more histological lesions. For all patients, the initial surgical resection prevented recurrence. CONCLUSION: Routine pathological evaluation of hemorrhoidectomy specimens is not useful and is expensive. All operating procedures in proctology should reflect this attitude. It is nevertheless advisable to select for gross and microscopic evaluation any suspicious areas noticed at

the preoperative examination or during the procedure.

Surgical management of rectal prolapse.
Madiba TE, Baig MK, Wexner SD
Arch Surg 2005 Jan;140(1):63-73.
BACKGROUND: The problem of complete rectal prolapse is formidable, with no clear predominant treatment of choice. Surgical management is aimed at restoring physiology by correcting the prolapse and improving continence and constipation with acceptable mortality and recurrence rates. Abdominal procedures are ideal for young fit patients, whereas perineal procedures are reserved for older frail patients with significant comorbidity. Laparoscopic procedures with their advantages of early recovery, less pain, and possibly lower morbidity are recently added options. Regardless of the therapy chosen, matching the surgical selection to the patient is essential. OBJECTIVE: To review the present status of the surgical treatment of rectal prolapse. DATA SOURCES: Literature review using MEDLINE. All articles reporting on rectopexy were included. STUDY SELECTION: Articles reporting on prospective and retrospective comparisons were included. Case reports were excluded, as were studies comparing data with historical controls. DATA EXTRACTION: The results were tabulated to show outcomes of different studies and were compared. Studies that did not report some of the outcomes were noted as "not stated." DATA SYNTHESIS: Abdominal operations offer not only lower recurrence but also greater chance for functional improvements. Suture and mesh rectopexy produce equivalent results. However, the polyvinyl alcohol (Ivalon) sponge rectopexy is associated with an increased risk of infectious complications and has largely been abandoned. The advantage of adding a resection to the rectopexy seems to be related to less constipation. Laparoscopic rectopexy has similar results to open rectopexy but has all of the advantages related to laparoscopy. Perineal procedures are better suited to frail elderly patients with extensive comorbidity. CONCLUSIONS: Abdominal procedures are generally better for young fit patients; the results of all abdominal procedures are comparable. Suture and mesh rectopexy are still popular with many surgeons-the choice depends on the surgeon's experience and preference. Similarly, the procedure may be done through a laparoscope or by laparotomy. Perineal procedures are preferable for patients who are not fit for abdominal procedures, such as elderly frail patients with significant comorbidities. The decision between perineal rectosigmoidectomy and Delorme procedures will depend on the surgeon's preference, although the perineal rectosigmoidectomy has better outcomes.

Perirectal haematoma and hypovolaemic shock after rectal stapled mucosectomy for haemorrhoids.
Grau LA, Budo AH, Fantova MJ, Sala XS
Int J Colorectal Dis 2005 Jan 28;.

Abdominal rectopexy for complete rectal prolapse: preliminary results of a new technique.
Di Giorgio A, Biacchi D, Sibio S, Accarpio F, Sinibaldi G, Petrella L, Cappiello FR, Sammartino P
Int J Colorectal Dis 2005 Mar;20(2):180-9. Epub 2004 Nov 20.
PURPOSE: Although the technique for the surgical repair of rectal prolapse has advanced over the years, no ideal procedure has been found. We aim to test a new surgical procedure for abdominal rectopexy that uses the greater omentum to support the rectum below the rectopexy, to reconstruct the anorectal angle and dispense with the need for synthetic mesh, thus reducing the risk of infection.METHODS: A series of ten patients, all young and medically fit, underwent repair surgery for rectal prolapse with the new rectopexy technique. Some patients had concomitant sigmoidectomy. Preoperative and postoperative assessment included a clinical examination, anal manometry and defecography.RESULTS: Follow-up lasted a mean of 56.4 months. None of the patients had recurrent rectal prolapse or infection. Postoperative assessment at 24 months disclosed significant improvements in all the bowel and sphincter variables assessed. The 8 patients who had severe incontinence preoperatively had notably improved and 4 were fully continent, 3 moderately incontinent, and only 1 patient had persistently high levels of incontinence. In only 1 patient who initially had severe incontinence, continence completely regressed and severe constipation developed. Maximal basal pressure values increased significantly after surgery (p=0.0025), although they increased slightly less evidently in patients in whom marked incontinence persisted at postoperative follow-up. Maximal voluntary contraction pressure also increased significantly after surgery (p=0.0054), although the values changed less than those for basal pressure. During rest, squeeze and straining, and in all the patients who regained continence, even those who recovered it only partly, surgery substantially reduced the anorectal angle. The reduction during rest was statistically significant (p=0.0062).CONCLUSIONS: The rectopexy technique we tested in patients with rectal prolapse avoids the need for synthetic mesh, and provides good results in terms of bowel and sphincter function, without infection or recurrence.

Open vs. closed hemorrhoidectomy.
You SY, Kim SH, Chung CS, Lee DK

Dis Colon Rectum 2005 Jan;48(1):108-13.
PURPOSE: This prospective, randomized, clinical trial compared the outcome of surgical hemorrhoidectomy by open and closed techniques in terms of postoperative pain, wound healing, and morbidity. METHODS: All consecutive patients with Grade III internal hemorrhoids with prominent external components or Grade IV hemorrhoids were randomly allocated to one of two groups. The entire wound was left open in the open group and completely closed using 5-0 chromic sutures in the closed group. Postoperative pain was assessed by a linear analog scale. Additional consumption of oxycodone hydrochloride on the day of surgery and at defecation during the first week was recorded. Patients were followed up 1, 2, and 3 weeks after the procedure. RESULTS: There were 40 patients in each group. Pain score at recovery from the anesthesia was significantly lower in the closed group ($P < 0.05$). Altogether, 15 percent of patients in the closed group required additional oxycodone hydrochloride for pain compared to 45 percent in the open group ($P < 0.01$). The pain score at the first bowel movement was significantly lower in the closed group ($P < 0.01$). Wound healing was significantly faster in the closed group: 75 percent of patients in the closed group had healed at 3 weeks after the procedure compared to 18 percent in the open group ($P < 0.001$). CONCLUSIONS: The closed technique is more advantageous with respect to less pain during the early postoperative period and faster wound healing.

Bowel habits in hemorrhoid patients and normal subjects.
Johannsson HO, Graf W, Pahlman L
Am J Gastroenterol 2005 Feb;100(2):401-6.
OBJECTIVES: Bleeding, pain, soiling, and prolapse are the classic symptoms in hemorrhoid disease, but the patients sometimes report a variety of other symptoms. Little is known about functional bowel symptoms in patients with hemorrhoids and few studies have previously addressed this subject. The aim of this study was to compare patients with hemorrhoids with a control population regarding functional bowel symptoms and anorectal complaints. MATHODS: One hundred consecutive patients who participated in a randomized study on hemorrhoidectomy completed a validated questionnaire on bowel and anorectal functional symptoms. Two hundred age- and gender-matched population based control subjects, and 100 gender-matched consecutive patients undergoing an orthopedic procedure served as two control groups, and completed the same questionnaire. RESULTS: Bowel frequency was the same in all three groups, but only 37% of the patients described their bowel movements as normal, compared to 55 and 67% of the controls ($p < 0.001$). Up to 37% of the patients reported bloating, compared to 18 and 26% in the control groups. Abdominal pain associated with bowel evacuation was experienced by 34% of the patients but in 3 and 5% of the controls ($p < 0.001$). Excessive straining, feeling of incomplete evacuation, and repeated toilet visits were significantly more usual in the patients. Reduced feeling of well being and disturbed social life caused by bowel symptoms was often reported by patients but rarely in the control groups. CONCLUSIONS: Beside hemorrhoidal symptoms, many patients with Grade 3-4 hemorrhoids have concomitant functional bowel symptoms, possibly associated with the irritable bowel syndrome. This knowledge might be important while selecting therapy for patients with hemorrhoids. (Am J Gastroenterol 2005;100:1-6).

Site-Specific Rectocele Repair Compared With Standard Posterior Colporrhaphy.
Abramov Y, Gandhi S, Goldberg RP, Botros SM, Kwon C, Sand PK
Obstet Gynecol 2005 Feb;105(2):314-318.
OBJECTIVE: To compare the anatomic and functional outcomes of site-specific rectocele repair and standard posterior colporrhaphy. METHODS: We reviewed charts of all patients who underwent repair of advanced posterior vaginal prolapse in our institution between July 1998 and June 2002 with at least 1 year of follow-up. RESULTS: This study comprised 124 consecutive patients following site-specific rectocele repair and 183 consecutive patients following standard posterior colporrhaphy without levator ani plication. Baseline characteristics, including age, body mass index, parity, previous pelvic surgeries, and preoperative prolapse were not significantly different between the 2 study groups. Recurrence of rectocele beyond the midvaginal plane (33% versus 14%, $P = .001$) and beyond the hymenal ring (11% versus 4%, $P = .02$), recurrence of a symptomatic bulge (11% versus 4%, $P = .02$), and postoperative Bp point (-2.2 versus -2.7 cm, $P = .001$) were significantly higher after the site-specific rectocele repair. Rates of postoperative dyspareunia (16% versus 17%), constipation (37% versus 34%), and fecal incontinence (19% versus 18%) were not significantly different between the 2 study groups. CONCLUSION: Site-specific rectocele repair is associated with higher anatomic recurrence rates and similar rates of dyspareunia and bowel symptoms than standard posterior colporrhaphy. LEVEL OF EVIDENCE: II-3.

Identification of differentially expressed genes in primary varicose veins.
Kim DI, Eo HS, Joh JH
J Surg Res 2005 Feb;123(2):222-6.
Our results suggest that the screened cDNA clones are useful disease markers in the genetic diagnosis of

primary varicose vein and that the L1 and Alu elements possibly participated in the development of primary varicose veins through their expression patterns in genes encoded with structural proteins, such as collagen, elastin, and tropomyosin. Further studies are required to elucidate the potential relationship between repeat sequences and primary varicose veins.

5 – RETENTIONS

Alfuzosin 10 mg once daily in the management of acute urinary retention: results of a double-blind placebo-controlled study.

McNeill SA, Hargreave TB, Roehrborn CG

Urology 2005 Jan;65(1):83-9; discussion 89-90.

OBJECTIVES: To study the impact of alfuzosin 10 mg once daily (OD) on the outcome of a trial without catheter (TWOC) after a first episode of acute urinary retention (AUR) related to benign prostatic hyperplasia (BPH) and the subsequent management of BPH in these patients. METHODS: A total of 360 patients underwent emergency catheterization and were blindly randomized to alfuzosin 10 mg OD or placebo for 3 days (first phase). All patients with successful TWOC, regardless of treatment, were then again blindly randomized to alfuzosin 10 mg OD or placebo for 6 months (second phase). The need for BPH surgery (primary endpoint) was assessed after 1, 3, and 6 months of treatment. RESULTS: Alfuzosin significantly increased the successful TWOC rate (146 of 236, 61.9%) compared with placebo (58 of 121, 47.9%; P = 0.012). In the second phase, 14 (17.1%) of the 82 alfuzosin-treated patients versus 20 (24.1%) of the 83 placebo-treated patients required BPH surgery, 5 (36%) of 14 versus 13 (65%) of 20 within 1 month, and 8 (57%) of 14 versus 17 (85%) of 20 within 3 months of treatment. Emergency surgery because of AUR relapse was the main cause of failure in both groups (11 [78.6%] of 14 in the alfuzosin group and 16 [80.0%] of 20 in the placebo group). Compared with placebo, alfuzosin improved the Kaplan-Meier survival rates by 9.6% (P = 0.04), 11.4% (P = 0.04), and 8.3% (P = 0.20), with surgical risk reductions of 61%, 52%, and 29% at 1, 3, and 6 months of treatment, respectively. High prostate-specific antigen values and the post-TWOC residual urine volume significantly increased the risk of AUR relapse and BPH surgery. Alfuzosin 10 mg OD was well tolerated. CONCLUSIONS: Alfuzosin 10 mg OD increased the likelihood of successful TWOC in men with a first episode of spontaneous AUR and should be continued beyond the acute phase, as it reduced the need for BPH surgery during a 6-month treatment period.

Early postpartum voiding dysfunction: incidence and correlation with obstetric parameters.

Groutz A, Hadi E, Wolf Y, Maslovitz S, Gold R, Lessing JB, Gordon D

J Reprod Med 2004 Dec;49(12):960-4.

Approximately 50% of patients complained of voiding difficulties in the immediate postpartum period. Main risk factors were prolonged first and second stages of labor, vacuum extraction and birth weight > or = 3,800 g. Long-term follow-up is needed to determine the significance of this clinically common entity.

Symptoms of voiding dysfunction: what do they really mean?

Dietz HP, Haylen BT

Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan-Feb;16(1):52-5. Epub 2004 Aug 03.

Many women presenting with pelvic floor dysfunction will complain of voiding symptoms. This study examines the relationship between such symptoms and uroflowmetry parameters in 414 women with complaints of pelvic floor dysfunction who underwent free uroflowmetry with a weight transducer type flowmeter. Symptoms of voiding dysfunction were ascertained by interview, with symptoms rated positive if they occurred more than occasionally. Symptoms were correlated with maximum urine flow rate and maximum urine flow rate centiles: 356 women voided between 50 and 600 ml; these datasets were used for analysis. Average age was 57.4 years (range: 17-86). Symptoms of voiding dysfunction were common (62%): 26% of women described hesitancy, 28% a poor stream, 26% stop- start voiding, 15% straining to void, and 35% incomplete emptying/need to revoid. As a group, symptoms of voiding dysfunction were associated with reduced maximum urine flow rate centiles (28.1 vs 36.3, p= 0.011). The strength of the association varied markedly, with only hesitancy (p=0.002), poor stream (p<0.001), and stop-start voiding (p=0.014) reaching significance. Hesitancy, poor stream, and stop-start voiding were the only symptoms predictive of voiding impairment. Straining to void and the sensation of incomplete emptying or the need to revoid were not associated with a significant reduction in maximum flow rate centiles.

Do subjective symptoms of obstructive voiding correlate with post-void residual urine volume in women?

Al-Shahrani M, Lovatsis D

Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan-Feb;16(1):12-4. Epub 2004 Jul 29.

The objective was to determine if symptoms of obstructive voiding correlate with post-void residual urine

volume measured by catheterization. A cross-sectional study of 134 consecutive women referred to a tertiary urogynecology clinic was performed. Subjects were interviewed regarding three types of obstructive voiding symptoms: a sensation of incomplete emptying, straining to void, and slow urine stream. Post-void residual urine volume was measured by catheterization as the gold standard. Data for each symptom were analyzed using Cohen's kappa test, sensitivity, specificity, likelihood ratios for a positive of negative test, and positive and negative predictive values. A total of 11 out of 134 patients (8%) had a post-void residual volume greater than 100 ml. Of these 11, 1 had symptoms of incomplete emptying (9%), 1 had symptoms of straining to void (9%), and 2 had symptoms of slow urine stream (18%). Sensitivity, specificity, likelihood ratio for a positive symptom, likelihood ratio for a negative symptom, positive predictive value, negative predictive value, and Cohen's kappa, respectively, were 9%, 80%, 0.47, 1.13, 4%, 91%, and 0.05 for the symptom of incomplete emptying, 9%, 91%, 1.12, 1.0, 8%, 92%, and 0.01 for straining to void, and 18%, 89%, 1.6, 0.92, 13%, 92%, and 0.07 for the symptom of slow urine stream. It was concluded that symptoms of obstructive voiding do not correlate with measured post-void urine volume. In clinically important situations, these symptoms cannot substitute for measurement of post-void residual urine volume.

Expression of c-kit messenger ribonucleic acid and c-kit protein in sigmoid colon of patients with slow transit constipation.
Tong WD, Liu BH, Zhang LY, Xiong RP, Liu P, Zhang SB
Int J Colorectal Dis 2005 Feb 2;.
BACKGROUND AND AIMS: The c-kit protooncogene receptor and its ligand stem cell factor regulate the proliferation and survival of germ cells as well as interstitial cells of Cajal (ICCs). Decreased numbers of ICCs and defects in its networks have been reported in the colon of patients with slow transit constipation (STC). However, little information about the c-kit messenger ribonucleic acid (mRNA) and protein expression in the constipated colon is available. The aim of this study was to determine whether the expression of c-kit mRNA and c-kit protein declined in the colon in STC. PATIENTS AND METHODS: The sigmoid colonic samples from 12 patients with STC and from eight age-matched patients with non-obstructed colorectal cancer were used for this study. Expression of c-kit mRNA was detected by reverse transcriptase-polymerase chain reaction (RT-PCR), and expression of c-kit protein was detected by Western blot analysis. RESULTS: Decreased expression of c-kit mRNA was demonstrated in the STC group compared with the control group. The ratio of c-kit and beta-actin was 1.26+/-0.32 in controls and 1.17+/-0.41 in the STC group (U=0.500, P=0.029). c-kit protein expression significantly declined in the STC group. The mean value of optical density was 162.97+/-5.43 in the control group and 96.64+/-8.80 in the STC group (U=0.000, P=0.021). CONCLUSIONS: The data indicate that the expression of c-kit mRNA and c-kit protein significantly decreased in the colon of STC, suggesting that the c-kit signal pathway may play an important role in ICC reduction in STC.

Is constipation associated with decreased physical activity in normally active subjects?
Tuteja AK, Talley NJ, Joos SK, Woehl JV, Hickam DH
Am J Gastroenterol 2005 Jan;100(1):124-9.
BACKGROUND: The effectiveness of physical activity in the management of constipation remains controversial. We examined the associations among physical activity, constipation, and quality of life (QoL) in a population of employed adults to determine whether the risk of constipation is related to physical activity. METHODS: A total of 1,069 employees (age range 24-77) of the Veterans Affairs (VA) Black Hills Health Care System were mailed validated questionnaires (response rate 72%), inquiring about bowel habits, QoL (SF 36), and physical activity (modified Baecke questionnaire). Constipation was defined using the Rome I criteria. RESULTS: One hundred and forty (19.4%, 95% CI 16.2-22.4) employees reported constipation. The average total physical activity and all subscales of physical activity were not significantly different in subjects with and without constipation (all p > or = 0.2). Subjects with constipation had lower QoL scores than subjects without constipation, and physical activity was positively correlated with physical functioning and health perception. CONCLUSION: Physical activity appears to be unrelated to the risk of constipation in employed adults, but higher physical activity was associated with improved QoL. Recommendations to increase physical activity may not alter symptoms of constipation but may improve overall well-being.

Tegaserod for the treatment of chronic constipation: a randomized, double-blind, placebo-controlled multinational study.
Kamm MA, Muller-Lissner S, Talley NJ, Tack J, Boeckxstaens G, Minushkin ON, Kalinin A, Dzieniszewski J, Haeck P, Fordham F, Hugot-Cournez S, Nault B
Am J Gastroenterol 2005 Feb;100(2):362-72.
OBJECTIVES: Chronic constipation is a common, persistent disorder with limited effective treatment options. This study investigated the efficacy, safety, and tolerability of tegaserod in the treatment of chronic constipation. MATHODS: After a 2-wk baseline period, patients were randomized to double-blind treatment

of 12 wk with tegaserod (2 or 6 mg b.i.d.) or placebo. Response during weeks 1-4 (primary variable) was defined as an increase in complete spontaneous bowel movement (CSBM)/wk. Secondary variables included response during weeks 1-12, patient evaluation of individual symptoms, and global assessment of bowel habits and constipation. RESULTS: One thousand two hundred and sixty-four patients were randomized to tegaserod or placebo. Responder rates for the primary efficacy variable were 35.6% for tegaserod 2 mg b.i.d. (p= 0.0059 vs placebo), 40.2% for 6 mg b.i.d. (p < 0.0001 vs placebo) and 26.7% for placebo. The number needed to treat was 7.3 for the 6 mg b.i.d. dose compared with 11.1 for tegaserod 2 mg b.i.d. Tegaserod 6 mg b.i.d. reduced straining, abdominal bloating/distension, and abdominal pain/discomfort during the 12-wk treatment period compared with placebo (p < 0.05 for all symptoms). Significant improvements were also seen in stool form and in global assessment of bowel habits and constipation. The most common adverse events, headache and abdominal pain, were more frequent with placebo than with tegaserod. CONCLUSIONS: Tegaserod was efficacious in relieving symptoms of chronic constipation and was well tolerated. (Am J Gastroenterol 2005;100:1-11).

Myths and misconceptions about chronic constipation.
Muller-Lissner SA, Kamm MA, Scarpignato C, Wald A
Am J Gastroenterol 2005 Jan;100(1):232-42.
There are many strongly held beliefs about constipation that are not evidence based. The purpose of this review is to address these beliefs concerning various aspects of constipation. There is no evidence to support the theory that diseases may arise via "autointoxication," whereby poisonous substances from stools within the colon are absorbed. Dolichocolon, defined as an elongated colon, should not be seen as a cause of constipation. The role of sex hormones altering gut function during the menstrual cycle appears to be minimal. During pregnancy they may play a role in slowing gut transit. Hypothyroidism can cause constipation, but among patients presenting with constipation, hypothyroidism is rare. A diet poor in fiber should not be assumed to be the cause of chronic constipation. Some patients may be helped by a fiber-rich diet but many patients with more severe constipation get worse symptoms when increasing dietary fiber intake. There is no evidence that constipation can successfully be treated by increasing fluid intake unless there is evidence of dehydration. In the elderly constipation may correlate with decreased physical activity, but many cofactors are likely to play a role. Intervention programs to increase physical activity as part of a broad rehabilitation program may help. It is unlikely that stimulant laxatives at recommended doses are harmful to the colon. A proportion of patients with chronic constipation is dependent of laxatives to achieve satisfactory bowel function, but this is not the result of prior laxative intake. Tolerance to stimulant laxatives is uncommon. There is no indication for the occurrence of "rebound constipation" after stopping laxative intake. While laxatives may be misused, there is no potential for addiction.

Role of anal dilatation in treatment of idiopathic constipation in children: long-term follow-up of a double-blind randomized controlled study.
Keshtgar AS, Ward HC, Clayden GS, Sanei A
Pediatr Surg Int 2005 Feb;21(2):100-105. Epub 2005 Jan 21.
Constipation in childhood is a common symptom, with an estimated incidence between 0.3% and 8%. Most of the evidence for the current management of constipation and fecal soiling in children is based on reports of nonrandomized retrospective trials. Anal dilatation has had an established role in the management of idiopathic constipation but has never been evaluated by a randomized study. A double-blind randomized controlled trial was done of children who failed to respond to medical treatment and were admitted for investigation and treatment of idiopathic constipation to Guy's Hospital, London, between April 2001 and April 2003. All children had intestinal transit study on admission. They were randomized, using a computer-generated allocation in sealed envelopes, to receive no anal dilatation (control group) or anal dilatation (anal dilatation group). Anorectal manometry and endosonography were done under ketamine anesthesia followed by anal dilatation if necessary under the same anesthesia. Disimpaction of feces from the rectum was done at the end of the procedure under general anesthesia using propofol muscle relaxant to minimize stretching of anal sphincter muscles in the control group. All children had intensification of medical treatment, toilet training, and monitoring of their response to treatment during their hospital stay, which ranged from 3 to 5 days. Outcome was measured using a parent's questionnaire of symptom severity at 3 and 12 months of follow-up by one of the authors, who was blinded to randomization. The symptom severity score ranged between 0 and 65 and consisted of scores for the following: delay in defecation (score range 0-10), difficulty and pain with passing stool (0-5), soiling problem (0-10), intensity of laxative treatment (0-10), child's general health (0-5), behavior related to the bowel problem (0-5), overall improvement of symptoms (0-12,) and assessment of megarectum on abdominal examination (0-8). Of 60 neurologically normal children, 31 (19 males) were randomized in the control group and 29 (18 males) in the anal dilatation group. All children had findings consistent with idiopathic constipation and positive anorectal reflex on manometry, no anal sphincter damage on endosonography, and no anal fissure on examination under anesthesia. The median age for

control and anal dilatation groups was 7.97 (range 4.1-14.25) years and 7.78 (4-13.25) years, respectively. Both groups were also comparable with regard to median of duration of laxative treatment (32 months vs. 31.5 months), internal anal sphincter thickness on endosonography (0.90 mm vs. 0.80 mm), resting anal sphincter pressure on manometry (51 mmHg vs. 51 mmHg), total rectal capacity on manometry (260 mmHg vs. 260 mmHg), and total symptom severity score before admission (33 vs. 29), respectively. At 12-month follow-up, the median pre-admission symptom severity score had improved significantly, from 33 (range 12-49) in the control group and 29 (16-51) in the dilatation group to 15 (0-51, $p<0.0001$) and 19 (1-46, $p<0.0001$), respectively. There was no significant difference between the two groups with regard to symptom severity score improvement at 12-month follow-up ($p<0.92$). We found a significant correlation between total rectal capacity measured on manometry and symptom severity score before admission and at 12-month follow-up ($r=0.30$, $p<0.01$ and $r=0.25$, $p<0.05$, respectively). Our results indicate that anal dilatation does not contribute to the management of school-aged children with idiopathic constipation. Admission to hospital for clarification of diagnosis and intensification of medical treatment with disimpaction of stool from the rectum is beneficial.

The perceived effect of various foods and beverages on stool consistency.
Muller-Lissner SA, Kaatz V, Brandt W, Keller J, Layer P
Eur J Gastroenterol Hepatol 2005 Jan;17(1):109-12.
AIM: Some people believe that chocolate and other foods or beverages may cause constipation. This study was undertaken to quantify the effect of potentially constipating foods and beverages on apparently healthy and constipated populations of German individuals. METHODS: A questionnaire asking for the effect of certain foods and beverages on stool form (perceived consistency) was answered by 200 healthy controls, 122 patients with chronic constipation, and 766 patients with irritable bowel syndrome with constipation (IBS-C). RESULTS: Patients with constipation or IBS-C reported altered stool form after food and beverage consumption more often than controls (controls 42.5% vs constipation 52.0% vs IBS-C 57.0%, $P < 0.001$). Controls experienced hardening of stools less often and experienced softening more often than either constipation or IBS-C patients. When patients were asked which foods or beverages caused constipation (open ended question), chocolate was most frequently mentioned, followed by white bread and bananas. The results of systematic questioning yielded chocolate (48-64% of respondents), bananas (29-48%), and black tea (14-24%) as constipating, while prunes (41-52%), coffee (14-24%), wine (8-30%), beer (14-24%), and smoking (42-70% in those who smoked) were considered stool softeners. CONCLUSION: Several foodstuffs may exert an effect on stool consistency. Chocolate, bananas and black tea are perceived to cause constipation, while prunes are perceived to soften stools in many people. Coffee, wine and beer were perceived to soften stools in a minority of people. Cigarettes are perceived to soften stools by about half of the smokers.

6 – INCONTINENCES

Effect of intravaginal electrical stimulation on pelvic floor muscle strength.
Amaro JL, Gameiro MD, Padovani CR
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 13;.
The aim of this study was to evaluate the effect of intravaginal electrical stimulation (IES) on pelvic floor muscle (PFM) strength in patients with mixed urinary incontinence (MUI). Between January 2001 and February 2002, 40 MUI women (mean age: 48 years) were studied. Urge incontinence was the predominant symptom; 92.5% also presented mild stress urinary incontinence (SUI). Selection criteria were clinical history and urodynamics. Pre-treatment urodynamic study showed no statistical differences between the groups. Ten percent of the women in each group had involuntary detrusor contractions. Patients were randomly distributed, in a double-blind study, into two groups. Group G1 (n=20), effective IES, and group G2 (n=20), sham IES, with follow-up at 1 month. The following parameters were studied: (1) clinical questionnaire, (2) examiner's evaluation of perineal muscle strength, (3) objective evaluation of perineal muscle by perineometry, (4) vaginal weight test, and (5) urodynamic study. The IES protocol consisted of three 20-min sessions per week over a 7-week period using a Dualpex Uro 996 at 4 Hz. There was no statistically significant difference in the demographic data of both groups. The number of micturitions per 24 h after treatment was reduced significantly in both groups. Urge incontinence, present in all patients before treatment, was reduced to 15% in G1 and 31.5% in G2 post-treatment. The subjective evaluation of PFM strength demonstrated a significant improvement in G1. Objective evaluation of PFM force by perineometer showed a significant improvement in maximum peak contraction post-treatment in both groups. In the vaginal weight test, there was a significant increase in average number of cone retentions post-treatment in both groups. With regard to satisfaction level, after treatment, 80% of the patients in G1 and 65% of the patients in G2 were satisfied. There was no statistically significant difference between the groups. There was

a significant improvement in PFM strength from both effective and sham electrostimulation, questioning the effectiveness of electrostimulation as a monotherapy in treating MUI.

Recurrent risk of anal sphincter laceration among women with vaginal deliveries.
Spydslaug A, Trogstad LI, Skrondal A, Eskild A
Obstet Gynecol 2005 Feb;105(2):307-13.
Only 10% of women with anal sphincter laceration at second delivery had a history of prior laceration. Prior anal sphincter laceration is associated with increased risk of laceration in second delivery, in particular in women who carry children with high birth weight. LEVEL OF EVIDENCE: II-2.

Three-dimensional ultrasonography to assess long-term durability of periurethral collagen in women with stress urinary incontinence due to intrinsic sphincter deficiency.
Poon CI, Zimmern PE, Wilson TS, Defreitas GA, Foreman MR
Urology 2005 Jan;65(1):60-4.
This is the first study to demonstrate the long-term durability of PCI on serial 3DUS in association with improved continence and QOL using questionnaire analysis. This new knowledge provides a technical and therapeutic endpoint for PCI.

The comparison of artificial urinary sphincter implantation and endourethral macroplastique injection for the treatment of postprostatectomy incontinence.
Imamoglu MA, Tuygun C, Bakirtas H, Yigitbasi O, Kiper A
Eur Urol 2005 Feb;47(2):209-13.
OBJECTIVES:: To compare the effectiveness of macroplastique injection with artificial urinary sphincter implantation (AUS) for treatment of postprostatectomy incontinence (PPI). METHODS:: A prospective randomized clinical trial including 45 patients with PPI was performed secondary to radical retropubic prostatectomy (RRP), transvesical prostatectomy (TVP), transurethral prostatectomy (TURP), and TURP with TVP, in 12, 16, 16, 1 patients respectively. Patients were divided into two groups as minimal (group I) and total incontinence (group II) according to the severity of incontinence. Respectively, Group I (n = 21) and group II (n = 24) patients were randomized as AUS implantation (n = 11, n = 11) and macroplastique injection (n = 10, n = 13). Follow-up period was 48 (6-84) months in patients with macroplastique injection and 60 (8-120) months in AUS implantation. The success of the treatment was evaluated by calculating the average number of pads used by the patient per day, the weight of the pads and score of quality of life survey scale for each group both in the preoperative and in the postoperative period. RESULTS:: There were statistically significant differences between preoperative and postoperative average pad weight, average number of pads and quality of life scores, both in patients with minimal and total incontinence. In group I there was no statistically significant difference between the two techniques. However, in group II there was a significant difference favoring AUS implantation. CONCLUSIONS:: Endourethral injection should be the treatment of choice for patients with minimal incontinence, whereas AUS implantation as the first choice for patients with total incontinence.

Patient satisfaction and clinical efficacy of the new perineal bone-anchored male sling.
Rajpurkar AD, Onur R, Singla A
Eur Urol 2005 Feb;47(2):237-42.
At a mean follow-up of 24 months, the male sling procedure appears to be effective in the management of male SUI with a success rate of 74%. Moreover, it is safe as evidenced by the absence of any major complications such as urethral erosion. Finally, it is associated with a 70% patient satisfaction.

Stress urinary incontinence in active elderly women.
Viktrup L, Koke S, Burgio KL, Ouslander JG
South Med J 2005 Jan;98(1):79-89.

Effect of transobturator tape procedure on proximal urethral mobility.
Minaglia S, Ozel B, Hurtado E, Klutke CG, Klutke JJ
Urology 2005 Jan;65(1):55-9.
OBJECTIVES: To assess prospectively the degree of urethral mobility in the preoperative and postoperative periods after the transobturator tape procedure and correlate the findings with surgical outcome. METHODS: Thirty-six consecutive patients with stress urinary incontinence underwent the transobturator tape procedure. A cotton-swab test was performed before the procedure and at the 6-week postoperative follow-up visit to evaluate proximal urethral mobility. Cure was defined as the absence of leak during cough stress testing at cystometric capacity. RESULTS: Of the 36 patients, 26 were available for the complete follow-up evaluation. The mean preoperative and postoperative resting cotton-swab test values were 11.7 degrees and 13.6

degrees, respectively (P = 0.347). The mean preoperative and postoperative straining cotton-swab test values were 57.3 degrees and 48.4 degrees, respectively (P = 0.047). Of the 36 patients, 21 had a straining cotton-swab test result of 30 degrees or greater after surgery, and 19 (90.4%) of these 21 patients were objectively cured by the procedure. Overall, 21 patients (84%) were objectively cured of stress urinary incontinence. Four patients had urinary leakage during stress testing at cystometric capacity. Three of these patients reported subjective cure and one noted improvement. Of the 5 patients with a negative cotton-swab test after surgery, 2 were cured (50%), 2 were not cured, and 1 did not undergo cough stress testing at cystometric capacity because of urgency at 200-mL limiting bladder filling. CONCLUSIONS: The cure of urodynamic stress incontinence using the transobturator tape procedure does not require the correction of proximal urethral mobility.

Ectopic placement of AMS 800 urinary control system pressure-regulating balloon.
Wilson SK, Delk JR 2nd
Urology 2005 Jan;65(1):167-70.
OBJECTIVES: The AMS 800 sphincter urinary control system (artificial urinary sphincter) is frequently placed in patients with scarred retroperitoneal spaces. Placement of the pressure-regulating balloon (PRB) requires a second abdominal incision in the traditional perineal surgical technique. In the new transverse scrotal incision method of sphincter placement, the transversalis fascia is pierced to place the PRB in the space of Retzius. We present a novel technique of ectopic PRB placement requiring neither a second incision nor piercing the fascia. TECHNICAL CONSIDERATIONS: Nineteen patients underwent ectopic PRB placement during artificial urinary sphincter placement. Most patients (n = 17) were incontinent after radical prostatectomy, two were incontinent after transurethral resection of the prostate. Cuff placement was through a scrotal (n = 10) or perineal (n = 9) incision. In all patients, the incision was displaced toward either inguinal ring. A finger was passed through the ring forcibly cephalad and a space developed anterior to the transversalis fascia but beneath the abdominal muscles. The PRB was passed into this space. CONCLUSIONS: The results of our study have shown that ectopic placement is easier and quicker. The PRB is usually not palpable. Two PRB hernias into the upper scrotum were noted after vigorous coughing. Two patients developed urethral atrophy under the cuff at 3 and 5.5 years. No erosions, infections, or mechanical failures were noted. Early outcomes with ectopic PRB placement seemed similar to that of traditional locations.

Estrogen receptor in pelvic floor tissues in patients with stress urinary incontinence.
Zhu L, Lang J, Feng R, Chen J, Wong F
Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):340-3. Epub 2004 Jun 10.
Our study is to investigate the presence of estrogen receptor (ER) and its possible etiological relationship with the development of stress urinary incontinence (SUI). Thirty-one biopsy specimens from pelvic floor tissues were obtained from 31 patients categorized into three groups: pelvic organ prolapse (POP), SUI and control groups. ER in the pelvic muscles tissues was evaluated quantitatively after immunohistochemical staining to visualize the ER in the tissue. The sampling rate of levator ani (striated) muscle was 6.7% in total sample from the pelvic floor tissues, with the remaining showing connective tissues, smooth muscles and nerve fibers. ER positive staining was found in the in the nuclei of connective tissue, smooth muscles and nerve fibers. The positive rates of ER staining in tissues were 1.4%, 4.7% and 5.7%, respectively in control group versus 1.1%, 2.8% and 2.7% in SUI group and 4.1%, 9.5% and 11.6% in POP group. The positive rates of ER staining in connective tissue, smooth muscle and nerve fibers in SUI group were significantly lower than that in control and POP group (P<0.01). Our study suggests that a decrease of ER in the pelvic floor tissues might be related to the occurrence of SUI and implies that hormone replacement therapy might not be effective in treatment for SUI.

The open bladder neck: a significant finding?
Digesu GA, Khullar V, Cardozo L, Salvatore S
Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):336-9. Epub 2004 Jun 05.
Women with lower urinary tract symptoms were retrospectively studied. They were all investigated using a urinary symptoms questionnaire, a frequency-volume chart and videocystourethrography. An open bladder neck was recorded at maximum cystometric capacity with the patient standing in the left lateral position, if contrast medium entered the proximal urethra at rest in the absence of a detrusor contraction or an increase in intra-abdominal pressure. Women with neurological disorders were excluded. Of 4500 women, 2,593 (57.6%) had a single urodynamics diagnosis and were included in the study: 1207 (46.5%) had urodynamics diagnosis of urodynamic stress incontinence, 558 (21.5%) had detrusor overactivity, 118 (4.6%) had sensory urgency, and 710 (27.4%) had a normal urodynamic study. Out of the 2,593 women included, 776 women (29.9%) had an open bladder neck at rest while 1817 (70.1%) had a closed bladder neck at rest. Only 45% (542/1207) of women with urodynamic stress incontinence had an open bladder neck at rest. Seventy

percent (542/776) of women with an open bladder neck had a diagnosis of urodynamic stress incontinence whilst 73% of women with detrusor overactivity and 93% of those with sensory urgency had a closed bladder neck. An open bladder neck at rest is not diagnostic of urethral sphincter incompetence but is associated with urodynamic stress incontinence. It is not associated with urgency as few women with sensory urgency and detrusor overactivity were found to have an open bladder neck. Imaging the bladder neck at rest has questionable value.

Is the cough-stress test necessary when placing the tension-free vaginal tape?
Murphy M, Culligan PJ, Arce CM, Graham CA, Blackwell L, Heit MH
Obstet Gynecol 2005 Feb;105(2):319-24.

Tension free vaginal tape: is the intra-operative cough test necessary?
Low SJ, Smith KM, Holt EM
Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):328-30. Epub 2004 Aug 03.

Vaginal pessaries for the management of stress and mixed urinary incontinence.
Donnelly MJ, Powell-Morgan S, Olsen AL, Nygaard IE
Int Urogynecol J Pelvic Floor Dysfunct 2004 Sep-Oct;15(5):302-7. Epub 2004 Aug 05.
The aim of this retrospective cohort study was to describe the use of incontinence pessaries in 239 women presenting to a tertiary referral center with symptoms of stress or mixed urinary incontinence. The mean age of the group was 57.4 years and mean body mass index 31.1 kg/m(2). We offered pessaries to 190 of 239 women, of whom 119 (62.6%) chose to undergo fitting. Most women (89.1%) achieved a successful fit. Of 106 women who took a pessary home to manage their incontinence, we were unable to contact six for follow-up. Fifty-five women used the pessary for at least 6 months (median duration 13.0 months, range 6-30), but 45 discontinued use before 6 months (median duration 1.0, range 0.03-4). Women with pulmonary disease and those who used diuretic medications were more likely to use pessaries for longer than 6 months, but no other differences between these groups were found. Pessaries appear to be an acceptable treatment option for stress and mixed urinary incontinence in that most women are willing to consider the option, and half of those successfully fitted continue use for at least 6 months.

Paula method of circular muscle exercises for urinary stress incontinence-a clinical trial.
Liebergall-Wischnitzer M, Hochner-Celnikier D, Lavy Y, Manor O, Arbel R, Paltiel O
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 20;.
The aim of this study was to determine the efficacy of the Paula method of circular muscle training in the management of stress incontinence (SI). The theory behind this method states that activity of distant sphincters affects other muscles. In a pilot study, 59 women, mainly hospital employees, were randomly assigned to participate in exercises according to the Paula method or pelvic floor training. Efficacy was measured by reports of incontinence, quality of life (I-QOL), pad test, and pelvic floor muscle strength (assessed by perineometer and digital examination). Both the Paula exercises and pelvic floor training produced significant changes in urinary leakage compared to baseline as measured by the pad test [mean decrease of 5.4 g (p=0.002) and 9.5 g (p=0.003), respectively]. Women randomized to the Paula method reported improvement in I-QOL scores. The Paula method was found to be efficacious for SI in a population of Israeli women. Larger community-based studies will be required to confirm these results and enable evaluation of between-group differences.

Impact of duloxetine on quality of life for women with symptoms of urinary incontinence.
Kinchen KS, Obenchain R, Swindle R
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jan 21;.
The objective of this study was to evaluate the effectiveness of duloxetine in improving quality of life among women with stress and mixed urinary incontinence. The study included 451 women with self-reported stress incontinence episodes (>/=1/week) who were randomized to duloxetine (40 mg BID) or placebo in a double-blind, usual care design. Patients and physicians were allowed to titrate, augment, and/or discontinue treatment. Concomitant treatments were permitted. The primary outcome was the Incontinence Quality of Life Questionnaire (I-QOL) score, with assessments at 3, 6, and 9 months. Other measures included the Patient Global Impression of Improvement (PGI-I) and adverse events. The adjusted mean change in I-QOL total score was greater in the duloxetine group than in the placebo group and at a level comparable to that found in previous clinical trials, but the difference between placebo and duloxetine was not statistically significant in the intent-to-treat, last observation carried forward (LOCF) analysis. The difference approached statistical significance in favor of duloxetine at 3 months (p=0.07). PGI-I ratings did not demonstrate significant superiority for duloxetine in LOCF analysis; however, study completers taking duloxetine were significantly more likely to rate themselves as "better" (70.2%) than completers taking placebo (50.8%,

p<0.05). Women utilized a variety of treatment methods including pelvic floor muscle training, estrogen, anticholinergic medication, weight reduction, and smoking cessation. In this study, while mean I-QOL change scores were numerically higher for the duloxetine group than mean change scores for the placebo group, this difference was not statistically significant. Among women who completed the study on study drug, a significantly greater proportion of duloxetine women versus placebo women rated their condition to be better.

The Effect of Home Biofeedback Training on Stress Incontinence.
Aukee P, Immonen P, Laaksonen DE, Laippala P, Pettinen J, Airaksinen O
Obstet Gynecol Surv 2005 Feb;60(2):95-96.

Selecting medications for the treatment of urinary incontinence.
Weiss BD
Am Fam Physician 2005 Jan 15;71(2):315-22.
In response to the growing population of older patients with incontinence, pharmaceutical companies are developing new drugs to treat the condition. Before prescribing medications for incontinence, however, physicians should determine the nature and cause of the patient's incontinence. The evaluation should rule out reversible conditions, conditions requiring special evaluation, and overflow bladder. The best treatment for urge incontinence is behavior therapy in the form of pelvic floor muscle exercises. Medications, used as an adjunct to behavior therapy, can provide additional benefit. Many therapies are available for patients with stress incontinence, including pelvic floor muscle exercise, surgery, intravaginal support devices, pessaries, peri-urethral injections, magnetic chairs, and intraurethral inserts. No medication has been approved for the treatment of stress incontinence, although medications are under development.

Injectable silicone biomaterial for fecal incontinence caused by internal anal sphincter dysfunction is effective.
Tjandra JJ, Lim JF, Hiscock R, Rajendra P
Dis Colon Rectum 2004 Dec;47(12):2138-46.
PURPOSE: Fecal incontinence caused by a weak or disrupted internal anal sphincter is common but there has been no effective treatment. This prospective study evaluates the medium-term clinical effects of an injectable silicone biomaterial, PTP (Bioplastique), used to augment the internal anal sphincter. METHOD: Eighty-two patients (64 females; median age, 66 years) with severe fecal incontinence and a low anal resting pressure caused by internal anal sphincter dysfunction (defect, n = 11; intact, n = 71) were randomized to PTP injection into intersphincteric space and internal anal sphincter with (Group A, n = 42) or without (Group B, n = 40) guidance by endoanal ultrasound. Both groups were similar in terms of age, gender, past anorectal surgery, duration of follow-up (median, 6 months; range, 1-12 months), and baseline continence score. Sixty-two percent of Group A and 55 percent of Group B had prolonged pudendal nerve terminal motor latency. RESULTS: There was no significant complication. Two patients in Group A and four patients in Group B noted minor discomfort at injection sites. At one month postprocedure, endoanal ultrasound confirmed retention of silicone biomaterial without migration. In both groups, fecal continence was significantly improved by PTP implants 1 month after injection, but continued to improve significantly for up to 12 months in Group A and 6 months in Group B (P < 0.001). Improvement in fecal continence and maximum anal resting pressure was significantly greater in Group A, in whom injection was guided by endoanal ultrasound, than in Group B. At three months after injection, significantly more Group A patients than Group B patients achieved >50 percent improvement in Wexner's continence score (69 percent vs. 40 percent; P = 0.014). Ninety-three percent of Group A and 92 percent of Group B had >50 percent improvement in global quality of life scores (visual analog scale). At a median follow-up of 6 months, all domains of the fecal incontinence quality of life scale improved significantly in both groups; however, the physical function and mental health scores of Short Form-12 only improved in Group A. A prolonged pudendal nerve terminal motor latency had no effect on functional outcome in either group. CONCLUSION: Injection of silicone biomaterial provided a marked improvement in fecal continence and quality of life in patients with internal sphincter dysfunction, despite the presence of pudendal neuropathy.

German artificial sphincter system: first report of a novel and highly integrated sphincter prosthesis for therapy of major fecal incontinence.
Schrag HJ, Padilla FF, Goldschmidtboing F, Doll A, Woias P, Hopt UT
Dis Colon Rectum 2004 Dec;47(12):2215-7.

Rectal hypersensitivity worsens stool frequency, urgency, and lifestyle in patients with urge fecal incontinence.
Chan CL, Scott SM, Williams NS, Lunniss PJ
Dis Colon Rectum 2005 Jan;48(1):134-40.

PURPOSE: Rectal sensory mechanisms are important in the maintenance of fecal continence. Approximately 50 percent of patients with urge incontinence have lowered rectal sensory threshold volumes (rectal hypersensitivity) on balloon distention. Rectal hypersensitivity may underlie the heightened perception of rectal filling; however, its impact on fecal urgency and incontinence is unknown. This study was designed to investigate the impact of rectal hypersensitivity in patients with urge fecal incontinence. METHODS: Prospective and retrospective audit review of all patients (n = 258) with an intact native rectum referred to a tertiary colorectal surgical center for physiologic investigation of urge fecal incontinence during a 7.5-year period. Patients with urge fecal incontinence who had undergone pelvic radiotherapy (n = 9) or rectal prolapse (n = 6) were excluded. RESULTS: A total of 108 of 243 patients (44 percent) were found to have rectal hypersensitivity. The incidence of anal sphincter dysfunction was equal (90 percent) among those with or without rectal hypersensitivity. Patients with urge fecal incontinence and rectal hypersensitivity had increased stool frequency (P < 0.0001), reported greater use of pads (P = 0.003), and lifestyle restrictions (P = 0.0007) compared with those with normal rectal sensation, but had similar frequencies of incontinent episodes. CONCLUSIONS: Urge fecal incontinence relates primarily to external anal sphincter dysfunction, but in patients with urge fecal incontinence, rectal hypersensitivity exacerbates fecal urgency, and this should be considered in the management and surgical decision in patients who present with fecal incontinence.

Secca procedure for the treatment of fecal incontinence.
Nunoo-Mensah JW
Dis Colon Rectum 2005 Jan;48(1):175; author reply 175-6.

A randomized-controlled trial comparing an educational intervention alone vs education and biofeedback in the management of faecal incontinence in women.
Ilnyckyj A, Fachnie E, Tougas G
Neurogastroenterol Motil 2005 Feb;17(1):58-63.
Abstract Biofeedback (BF) training is an accepted therapy in the treatment of faecal incontinence (FI) despite a paucity of data demonstrating benefit. This study aims to determine whether BF has any specific effect above and beyond an educational intervention. Twenty-three women with regular and frequent idiopathic FI were randomized to education and pelvic exercise vs education and BF therapy. Complete data is available for 18 women. Overall, 61% of participants demonstrated a complete response. There was no difference in response rate between treatment arms. Women with FI demonstrate a good response to treatment with education and exercise and education plus BF thus questioning the specific effect of BF.

Prevalence and severity of anal incontinence in women with and without additional vaginal deliveries after a fourth-degree perineal laceration.
Sze EH
Dis Colon Rectum 2005 Jan;48(1):66-9.
The proportion that had severe incontinence was significantly higher among women who had undergone at least two additional deliveries.

7 – PAIN

Electronic diary assessment of pain-related variables: Is reactivity a problem?
Aaron LA, Turner JA, Mancl L, Brister H, Sawchuk CN
J Pain 2005 Feb;6(2):107-15.
Reactive measures (measures that change the phenomenon assessed) cause problems in interpreting any changes observed. This study examined whether electronic daily diary measures of pain, activity interference, mood, and pain beliefs were reactive in terms of both observable data and patient-reported effects. Patients with chronic temporomandibular disorder pain (N = 71, 86% female) completed electronic diaries 3 times daily for approximately 2 weeks and subsequently reported perceived effects on symptom-related variables. Seventy-three percent of patients reported that the assessment affected their pain, whereas 51%, 45%, and 39% thought that it affected their daily activities, mood, and beliefs, respectively. In contrast, there was little objective evidence of reactivity as observed in the electronic diary ratings; changes over 14 days were small (eg, predicted changes on 0 to 10 scales: positive mood, .1; pain, -.3; perceived control, -.5) and not statistically significant. Subjective reactivity was generally not significantly related to objective reactivity. The data suggest that patients view daily assessment as having positive and negative effects on pain-related variables, but pain-related measures do not show reactive effects. PERSPECTIVE: Electronic daily diary assessment methods hold the potential to increase knowledge concerning patients' experiences with pain and sequential relations between pain-related variables, but only if the measurement process is nonreactive. This study provides evidence that electronic diary assessment of pain-related

variables is nonreactive.

The measurement of pain, 1945-2000.
Noble B, Clark D, Meldrum M, Ten Have H, Seymour J, Winslow M, Paz S
J Pain Symptom Manage 2005 Jan;29(1):14-21.
Three strands of activity can be identified in the history of pain measurement. The first, psychophysics, dates back to the nineteenth century and measures the effect of analgesia by quantifying the noxious stimulation required to elicit pain, as well as the maximum stimulation tolerated. The second uses standardized questionnaires for patients, developed to categorize pain according to its emotional impact, distribution, character, and other dimensions. The third asks patients to report on pain intensity using rating scales, and is used in clinical trials where analgesics are evaluated and results can be combined to influence clinical guidelines and protocols. Although all three strands have found a place in modern clinical practice or drug development, it is the reporting of pain by patients undergoing treatment using simple scales of intensity which has emerged as the crucial method by which analgesic therapies can now be evaluated and compared.

Feasibility and clinical outcome of laparoscopic colorectal resection for endometriosis.
Darai E, Thomassin I, Barranger E, Detchev R, Cortez A, Houry S, Bazot M
Am J Obstet Gynecol 2005 Feb;192(2):394-400.
Objective This study was undertaken to evaluate the feasibility and complications of laparoscopic segmental colorectal resection for endometriosis and its efficacy on gynecologic and digestive symptoms. Study design After magnetic resonance imaging and rectal endoscopic sonographic evaluation of symptomatic colorectal endometriosis, 40 consecutive women requiring colorectal resection were included in this study. Symptom questionnaires were completed before and after the procedure. Perioperative complications and linear intensity scores for several gynecologic and digestive symptoms were recorded. Results Thirty-six women (90%) underwent laparoscopic segmental colorectal resection and 4 required laparoconversion. Major complications occurred in 4 cases (10%), including 3 rectovaginal fistulae and 1 pelvic abscess. Transient urinary dysfunction occurred in 7 women (17.5%). Median follow-up after colorectal resection was 15 months (3-22 months). Median overall preoperative and postoperative pain scores were 8 +/- 1 (range 4-10) and 2 +/- 2 (0-10), respectively (P < .0001). Nonmenstrual pelvic pain (P = .0001), dysmenorrhea (P < .0001), dyspareunia (P = .0001), and pain on defecation (P < .0005) were improved by colorectal resection. Lower back pain and asthenia were not improved. Conclusion Our results suggest that laparoscopic segmental colorectal resection for endometriosis is feasible but carries a risk of major postoperative complications. Colorectal resection improved gynecologic and digestive symptoms, and the overall pain score.

Postpartum pelvic pain - the 'pelvic joint syndrome': a follow-up study with special reference to diagnostic methods.
Hansen A, Jensen DV, Larsen EC, Wilken-Jensen C, Kaae BE, Frolich S, Thomsen HS, Hansen TM
Acta Obstet Gynecol Scand 2005 Feb;84(2):170-6.
Background. The etiology of pelvic joint syndrome (PJS) is not fully clarified. As a consequence, there is a lack of diagnostic methods to confirm the diagnosis, which today is mainly based on medical history. Objective. The aim of this study was to examine women with PJS using various diagnostic methods. The hypothesis is that there are characteristics in this group of women that separate them from women who only suffer from pelvic pain during pregnancy and shortly after delivery, or healthy women. Methods. Fifty-eight women participated in this follow-up study - twenty-one with PJS, 17 women who suffered from pelvic pain during pregnancy and shortly after delivery, and 20 controls with no history of pregnancy-induced pelvic pain. Clinical examination, gynecologic examination, psychological tests, spine X-ray, magnetic resonance imaging (MRI), blood samples, and urine dipsticks were performed. Results. Clinical examination showed significant differences with regard to provocative tests and tenderness in the muscles and ligaments in the low back and the pelvis. Furthermore, psychological testing showed bad coping strategies when women with PJS were compared with those of the two control groups. However, no diagnostic method could explicitly differentiate between women with PJS and those of the two control groups. Thus, there was no significant difference in MRI, X-ray, blood or urine sample analysis. Conclusions. Women with PJS have positive provocative tests and ligament and muscular tenderness. Bad coping strategies might be an explanation why these women develop PJS.

Proctalgia fugax: caused by pudendal neuropathy?
Takano M
Dis Colon Rectum 2005 Jan;48(1):114-20.
There is a strange disease called proctalgia fugax in which rather uncomfortable pain appears suddenly mostly at night without any particular warning and disappears completely without any objective traces. It also

is categorized as a functional anorectal pain under the Rome II (diagnostic criteria for the functional gastrointestinal disorders). For the causes, many theories have been advocated but not decisive and therefore were not linked to the definite treatment. The author experienced 68 patients with proctalgia fugax, among which 55 patients had tenderness along the pudendal nerve. The location, character, and degree of pain caused by digital examination were confirmed by all of them to be similar to that which they experience at times of paroxysm. After administration of a nerve block, symptoms disappeared completely in 65 percent of the patients and decreased in 25 percent. These data suggest that the pathogenesis of proctalgia fugax is neuralgia of the pudendal nerves.

Visceral Sensitivity and Symptoms in Patients with Constipation- or Diarrhea-predominant Irritable Bowel Syndrome (IBS): Effect of a Low-Fat Intraduodenal Infusion.
Caldarella MP, Milano A, Laterza F, Sacco F, Balatsinou C, Lapenna D, Pierdomenico SD, Cuccurullo F, Neri M
Am J Gastroenterol 2005 Feb;100(2):383-9.
BACKGROUND: Visceral hypersensitivity is common in Irritable Bowel Syndrome (IBS) patients, and symptoms exacerbate postprandially. Yet the effects of nutrients on visceral sensitivity and symptoms in these patients have not been fully explored. AIMS: To evaluate the differences of visceral sensitivity and symptoms in healthy subjects and IBS patients during fasting and intraduodenal lipids infusion. METHODS: Graded rectal distensions at fixed tension levels were performed in 16 IBS patients (8 IBS-C and 8 IBS-D) and 6 healthy subjects before and during intraduodenal lipids infusion at 0.5 kcal/min. Tension levels were increased in 4 gr increments up to 64 gr or discomfort during both conditions. At each step, perception and symptoms were measured by means of a validated questionnaire. RESULTS: In basal conditions, perception thresholds in IBS patients and health were, respectively, 8 +/- 2 gr versus 32 +/- 9 gr ($p < 0.001$) with no changes during lipids. Intraduodenal lipids infusion significantly lowered threshold of discomfort in IBS patients in comparison to fasting (24 +/- 6 gr vs 34 +/- 4 gr; $p < 0.05$), while health tolerated all distension without discomfort. No differences of compliance, perception, or discomfort were observed between the two subgroups of patients at each tension step. The predominant symptom elicited in patients with IBS-C was abdominal pain (54%), while patients with IBS-D exhibited urgency (63%, $p < 0.005$); this pattern was maintained during lipids. CONCLUSIONS: Intraduodenal lipids increase visceral sensitivity in both IBS-C and IBS-D; symptoms specificity in response to rectal distension is maintained in the postprandial period. Lipids may be responsible for the postprandial symptoms exacerbation in IBS. (Am J Gastroenterol 2005;100:383-389).

Hypnotherapy in the treatment of irritable bowel syndrome.
Gonsalkorale WM, Whorwell PJ
Eur J Gastroenterol Hepatol 2005 Jan;17(1):15-20.
There is accumulating and compelling evidence that hypnotherapy is an effective treatment for irritable bowel syndrome. Recently, studies have shown that hypnotherapy has beneficial effects that are long lasting, with most patients maintaining improvement, and with decreased consultation and medication needs in the long term. The particular gut directed approach used, which is aimed at normalizing and controlling gut function, is also described. While the mechanisms of how hypnotherapy brings about its therapeutic effect are not fully known, changes in colonic motility and rectal sensitivity have been demonstrated, although changes in central processing and psychological effects may also play a role.

Cognitive behaviour therapy for irritable bowel syndrome.
Hutton J
Eur J Gastroenterol Hepatol 2005 Jan;17(1):11-4.
The UK Department of Health states that there is suggestive, although not conclusive, evidence for the efficacy of cognitive behavioural therapy (CBT) in irritable bowel syndrome (IBS) and that CBT should be considered as a treatment option for the syndrome. This paper provides a general introduction to CBT, the principles which underlie it and how they can be applied to IBS. The components of CBT for IBS are described in some detail. Guidelines for gastroenterologists are provided on how these principles can be used to inform their practice and the existing outcome data are reviewed.

Intestinal infection and irritable bowel syndrome.
Parry S, Forgacs I
Eur J Gastroenterol Hepatol 2005 Jan;17(1):5-9.
The observation that the symptoms of irritable bowel syndrome (IBS) in some patients might follow an episode of acute gastroenteritis came from epidemiological studies. Both retrospective and prospective studies suggest that between 4% and 26% of patients develop IBS for the first time after gastroenteritis. The diagnosis of post-infectious IBS is typically made from the history. In addition, as with the diagnosis of IBS

more generally, it is important to exclude other clinical causes for persistent bowel dysfunction. There is little, if any, evidence to support the widely-held view that patients with post-infectious IBS carry a better prognosis than IBS patients more generally. The management of patients with post-infectious IBS is the standard approach that might be applied to all patients with IBS. Post-infectious IBS patients may differ from IBS patients in general in having a low-level of intestinal inflammation. Work in animal models, and detection of low-grade inflammation in intestinal biopsies combined with markers of intestinal inflammation such as faecal calprotectin all indicate a strong possibility that persisting inflammation after the acute infection may be important in the pathogenesis of post-infectious IBS.

Overlap of gastrointestional symptom complexes in a US community.
Locke GR 3rd, Zinsmeister AR, Fett SL, Melton LJ 3rd, Talley NJ
Neurogastroenterol Motil 2005 Feb;17(1):29-34.
Abstract Background: Although the Rome criteria define a number of individual functional gastrointestinal disorders, people may have symptoms of multiple disorders at the same time. In addition, therapies may be effective in subsets of people with specific disorders, yet at the same time help people with multiple disorders. Aim: To estimate the prevalence of combinations of gastrointestional (GI) symptom complexes. Methods: A valid self report questionnaire which records GI symptoms was mailed to an age- and gender-stratified random sample of Olmsted County, MN residents aged 30-64 years. Standard definitions were used to identify people with gastro-oesophageal reflux, dyspepsia, irritable bowel syndrome (IBS), constipation and diarrhoea. The prevalence of people meeting multiple symptom complexes was estimated. Specifically, combinations of dyspepsia, IBS and constipation were compared to dyspepsia, IBS and diarrhoea. Results: A total of 657 (69%) of 943 eligible subjects responded; 643 provided data for each of the necessary symptom questions. Each two-way combination of symptom group was present in between 4 and 9% of the population; each three-way combination was present in 1-4% of the population. The overlap between dyspepsia, IBS and constipation was similar to dyspepsia, IBS and diarrhoea, except body mass index was higher in the diarrhoea overlap group (P = 0.03). Conclusion: Symptom complex overlap is common in the community; for each condition, the majority of sufferers reported an additional symptom complex. This overlap of symptoms challenges the current paradigm that functional GI disorders represent multiple discreet entities.

8 – FISTULAE

[Rectovaginal fistulas in adults]
Manaouil D, Dumont F, Regimbeau JM, Duval H, Brazier F, Dupas JL, Verhaeghe P
Gastroenterol Clin Biol 2004 Dec;28(12):1267-79.

Anocutaneous V-Y advancement flap for the treatment of complex perianal fistula.
Sungurtekin U, Sungurtekin H, Kabay B, Tekin K, Aytekin F, Erdem E, Ozden A
Dis Colon Rectum 2004 Dec;47(12):2178-83.
PURPOSE: The treatment of intersphincteric and low transsphincteric fistula is well defined, but controversy remains around the management of complex perianal fistula. This study was designed to assess the utility of anocutaneous flap repair in complex types of perianal fistula. METHODS: Sixty-five perianal fistula in 65 patients treated with anocutaneous advancement flap for the complex fistula, between April 1998 and December 2002, are included this prospective study. Mean age was 34 +/- 2.1 (range, 24-53) years. Magnetic resonance imaging was used for the diagnosis of fistula. Excision of the internal opening and the overlying anoderm, curettage of the fistula tract, closure of internal opening with absorbable polyglactin 3/0 suture, and drainage of the external opening(s) by insertion of penrose drain were common operational steps. Outcome was evaluated in terms of healing and incontinence. RESULTS: Successful healing of 59 of 65 complex fistulas was achieved using this technique with no disturbance of continence and minimal complications. Mean follow-up and complete healing time were 32 +/- 0.6 (range, 12-52) months and 5.4 +/- 0.8 (range, 3-7) weeks respectively. CONCLUSIONS: Although the study cases were relatively small in number, this report showed that clinical results of anocutaneous advancement flap are acceptable. However, large studies are needed to reach an ultimate conclusion for assessing the place of anocutaneous flap advancement in complex fistula.

Value of hydrogen peroxide enhancement of three-dimensional endoanal ultrasound in fistula-in-ano.
Buchanan GN, Bartram CI, Williams AB, Halligan S, Cohen CR
Dis Colon Rectum 2005 Jan;48(1):141-7.
PURPOSE: The aim of this prospective study was to compare the accuracy of three-dimensional endoanal ultrasound with that of hydrogen peroxide enhanced three-dimensional endoanal ultrasound in diagnosing recurrent or complex fistula-in-ano. METHODS: Three-dimensional endoanal ultrasound reconstructions

were performed before and after hydrogen peroxide enhancement in 19 patients with suspected recurrent or complex fistula-in-ano. Two experienced observers derived a consensus fistula classification after a blinded random review of the data sets. The accuracy of three-dimensional endoanal ultrasound and that of hydrogen peroxide-enhanced three-dimensional endoanal ultrasound were compared with a reference standard derived from surgical findings and magnetic resonance imaging and modified by outcome over a median follow-up of 13 months. RESULTS: Patients had previously undergone a median of three fistula operations. Four had Crohn's disease. There were 21 internal openings and primary tracks in 19 patients: 1 superficial, 1 intersphincteric, 18 transsphincteric, and 1 extrasphincteric. Fourteen patients had 19 secondary tracks. Both techniques detected fistula tracks in 19 of 21 (90 percent) patients. There was no significant difference between three-dimensional endoanal ultrasound and hydrogen peroxide-enhanced three-dimensional endoanal ultrasound in classifying internal openings (19/21 (90 percent) vs. 18/21 (86 percent)), primary tracks (17/21 (81 percent) vs. 15/21 (71 percent)), or secondary tracks (13/19 (68 percent) vs. 12/19 (63 percent)). Where three-dimensional endoanal ultrasound correctly detected an internal opening, gas from hydrogen peroxide enhancement was present in 8 of 18 (44 percent) studies. Similarly, gas made primary tracks more conspicuous in 6 of 19 (32 percent) and secondary tracks in 6 of 13 (46 percent) of those detected. CONCLUSIONS: In recurrent or complex fistula-in-ano, endoanal ultrasound proved more accurate for detecting primary tracks and internal openings than for detecting extensions. Hydrogen peroxide improved conspicuity of some tracks and internal openings and so may be helpful in difficult cases, although no overall diagnostic benefit was demonstrated.

Rectal duplication cyst presenting as perianal sepsis: report of two cases and review of the literature.
Flint R, Strang J, Bissett I, Clark M, Neill M, Parry B
Dis Colon Rectum 2004 Dec;47(12):2208-10.
INTRODUCTION: Recurrent perianal sepsis is a difficult problem to manage in colorectal surgical practice. One cause is rectal duplication cyst, a rare congenital lesion that is easily overlooked. Many cases have associated congenital defects, especially musculoskeletal anomalies, and may provide a clue to the underlying condition. Early diagnosis is important because these cysts do not resolve spontaneously and may undergo malignant change. METHODS: We present two cases of middle-aged females who presented with perianal sepsis secondary to rectal duplication cyst. The first case had numerous surgical procedures for a perianal fistula during a ten-year period. She had associated sacral anomalies consistent with Currarino syndrome. The second case presented with a perineal mass after a bout of perianal inflammation. Both cases had the entire cyst surgically excised. RESULTS: There were no complications postoperatively and no recurrence at follow-up. Histopathology revealed no malignancy in the cyst. CONCLUSIONS: Rectal duplication cyst is a rare cause of recurrent perianal sepsis that should be considered in difficult cases, especially in those with associated musculoskeletal anomalies. Complete surgical excision is the preferred treatment to prevent recurrence and the risk of malignant degeneration.

9 – BEHAVIOUR, PSYCHOLOGY, SEXOLOGY

Human pheromones and sexual attraction.
Grammer K, Fink B, Neave N
Eur J Obstet Gynecol Reprod Biol 2005 Feb 1;118(2):135-42.
Olfactory communication is very common amongst animals, and since the discovery of an accessory olfactory system in humans, possible human olfactory communication has gained considerable scientific interest. The importance of the human sense of smell has by far been underestimated in the past. Humans and other primates have been regarded as primarily 'optical animals' with highly developed powers of vision but a relatively undeveloped sense of smell. In recent years this assumption has undergone major revision. Several studies indicate that humans indeed seem to use olfactory communication and are even able to produce and perceive certain pheromones; recent studies have found that pheromones may play an important role in the behavioural and reproduction biology of humans. In this article we review the present evidence of the effect of human pheromones and discuss the role of olfactory cues in human sexual behaviour.

Erectile function: the barometer of men's health.
Mulcahy JJ
J Urol 2005 Feb;173(2):341.

Sexually transmitted diseases: an update.
Blair M
Urol Nurs 2004 Dec;24(6):467-73.

Sexually transmitted diseases (STDs) have reached epidemic numbers in this country and represent considerable costs to the health care system. Nurses, who see clients in a variety of acute and community settings, have a unique opportunity to discuss STDs and their prevention. However, nurses must retain knowledge that is up-to-date on each of these diseases. Nurses need to take the lead in evaluating their clients' risk of acquiring STDs and tailor specific preventative techniques to the individual needs uncovered.

Urologic complications of sexual trauma among male survivors of torture.
Norredam M, Crosby S, Munarriz R, Piwowarczyk L, Grodin M
Urology 2005 Jan;65(1):28-32.
The apparent prevalence and severity of the physical and mental sequelae to sexual trauma make it an important area for screening when treating survivors of torture. Our study is the first of its kind to document urologic complications of sexual torture in a foreign-born U.S. cohort of tortured men, including prevalence, diagnosis, and treatment. The proposed use of steroid injections in the clinical treatment of these patients has not been previously reported.

The Perceived Stress Questionnaire (PSQ) Reconsidered: Validation and Reference Values From Different Clinical and Healthy Adult Samples.
Fliege H, Rose M, Arck P, Walter OB, Kocalevent RD, Weber C, Klapp BF
Psychosom Med 2005 Jan-Feb;67(1):78-88.
Objective: The aim was to translate, revise, and standardize the Perceived Stress Questionnaire (PSQ) by Levenstein et al. (1993) in German. The instrument assesses subjectively experienced stress independent of a specific and objective occasion. Methods: Exploratory factor analyses and a revision of the scale content were carried out on a sample of 650 subjects (Psychosomatic Medicine patients, women after delivery, women after miscarriage, and students). Confirmatory analyses and examination of structural stability across subgroups were carried out on a second sample of 1,808 subjects (psychosomatic, tinnitus, inflammatory bowel disease patients, pregnant women, healthy adults) using linear structural equation modeling and multisample analyses. External validation included immunological measures in women who had suffered a miscarriage. Results: Four factors (worries, tension, joy, demands) emerged, with 5 items each, as compared with the 30 items of the original PSQ. The factor structure was confirmed on the second sample. Multisample analyses yielded a fair structural stability across groups. Reliability values were satisfactory. Findings suggest that three scales represent internal stress reactions, whereas the scale "demands" relates to perceived external stressors. Significant and meaningful differences between groups indicate differential validity. A higher degree of certain immunological imbalances after miscarriage (presumably linked to pregnancy loss) was found in those women who had a higher stress score. Sensitivity to change was demonstrated in two different treatment samples. Conclusion: We propose the revised PSQ as a valid and economic tool for stress research. The overall score permits comparison with results from earlier studies using the original instrument.

Perceived psychologic stress and colorectal cancer mortality: findings from the Japan collaborative cohort study.
Kojima M, Wakai K, Tokudome S, Tamakoshi K, Toyoshima H, Watanabe Y, Hayakawa N, Suzuki K, Hashimoto S, Kawado M, Suzuki S, Ito Y, Tamakoshi A
Psychosom Med 2005 Jan-Feb;67(1):72-7.
Objective: The purpose of this research was to examine the relationship between perceived psychologic stress and colorectal cancer mortality in a prospective large-scale study. Methods: Between the years 1988 and 1990, 32,153 men and 45,854 women aged 40 to 79 years were enrolled. Participants completed a self-administered questionnaire that addressed demographic, lifestyle, and psychosocial characteristics. Subjects were subsequently followed for mortality until the end of 1999. Perceived psychologic stress was assessed using the question "Do you feel stress during your daily life?" The 4 possible responses, ranging from "little or none" (1) to "extreme" (4), were dichotomized as low (1 or 2) or high (3 or 4) stress. Relative risks (RRs) with 95% confidence intervals (CIs) for colon and rectal cancer according to the perceived level of stress were estimated using Cox's proportional hazard model. Results: During the follow-up period (average, 9.6 years), 193 colon cancer deaths (96 men and 97 women) and 127 rectal cancer deaths (88 men and 39 women) were confirmed within the study group. Women who reported high stress had a 1.64-fold higher risk of colon cancer mortality (multivariate-adjusted RR, 1.64; 95% CI, 1.01-2.66) compared with those reporting low stress. There was no significant association between perceived stress and female rectal cancer or male colon and rectal cancer mortality. Conclusions: Perceived psychologic stress was weakly associated with increased mortality from colon cancer in women. No positive or inverse association was found in men. Further studies are needed to confirm our results.

Acupuncture for depression: first steps toward a clinical evaluation.

Macpherson H, Thorpe L, Thomas K, Geddes D
J Altern Complement Med 2004 Dec;10(6):1083-91.
Aim of study: To explore issues that need to be addressed in the design of a clinical trial of acupuncture for people with depression. Methods: In this study we conducted a focus group with 6 volunteer participants with experiences of depression, and a prospective case series of 10 patients who received acupuncture treatment for their depression. In the case series study, 10 patients were referred by their general practitioner, and received up to 10 individualized acupuncture treatments from one of two acupuncturists. Acupuncturists recorded traditional acupuncture diagnoses and details of the treatment provided. Measures of depression (Beck Depression Inventory and the Hospital Anxiety and Depression Scale) and health status (SF-36) were taken at baseline and 10 weeks later. Changes in mean before and after scores were analyzed using the Wilcoxon signed ranks test. Adverse events were also monitored. Results: The focus group and the case series both identified considerable heterogeneity among people with depression. In the case series, only 6 patients both received treatment and completed 10-week questionnaires; however, significant improvements between before and after were found in their levels of depression ($p < 0.05$). Many factors, as well as the acupuncture, may have contributed to these improvements. No serious adverse events occurred. In the context of designing a clinical trial of acupuncture for depression, a series of methodological challenges is explored. Conclusion: This study highlighted the complexities of evaluating acupuncture for patients with depression. Successfully addressing the identified methodological challenges in the design of a trial will increase its relevance and impact.

10 – MISCELLANEOUS

Outcome of transvaginal excision of large rectal adenomas.
Fu T, Liu B, Zhang L, Wen Y
Int J Colorectal Dis 2005 Jan 26;.
PURPOSE: The purpose is to recommend a new approach-transvaginal excision-for large rectal adenomas and audit its results after being performed by dedicated surgeons at a specialized colorectal unit. METHODS: The surgical outcome of 11 patients undergoing transvaginal excision between July 1995 and March 2000 was reviewed. Data were collected retrospectively and no patients were lost to follow-up. RESULTS: Eleven patients underwent the procedure during the study period. Follow-up ranged from 7 to 75 months. There were complications in two patients. One had urinary retention, the other developed a rectal stenosis, which was resolved with multiple balloon dilatations. There was only one recurrence detected. None of the patients died. CONCLUSIONS: Transvaginal local excision is an alternative and feasible technique for the treatment of selected large sessile rectal adenomas that carries low mortality and complication rates.

Post-micturitional hypotension in patients with multiple system atrophy.
Uchiyama T, Sakakibara R, Asahina M, Yamanishi T, Hattori T
J Neurol Neurosurg Psychiatry 2005 Feb;76(2):186-90.
BACKGROUND: Patients with multiple system atrophy (MSA) occasionally have episodes of syncope or pre-syncope after micturition. OBJECTIVE: To clarify the mechanism of these episodes by investigating the haemodynamic changes associated with micturition. METHODS: 25 patients with probable MSA and 16 age matched normal controls were studied. Continuous records of blood pressure and heart rate were made during water cystometry, along with the Valsalva manoeuvre, head up tilt testing, measurement of plasma noradrenaline, and calculation of coefficient of variance of RR intervals. RESULTS: Compared with normal controls, MSA patients had a lower baseline blood pressure, smaller blood pressure and heart rate increases during bladder filling, and an abnormal fall in blood pressure for a longer duration after voiding, resulting in significantly lower blood pressure than at baseline (mean systolic blood pressure reduction -15.2 mm Hg), and hypotension compared with control blood pressure (-29.0 mm Hg). The blood pressure fall was greater in patients with micturition syncope/pre-syncope than in those without. It was also greater in patients with abdominal straining resulting from difficulty in voiding. Other cardiovascular indices did not correlate with the fall in blood pressure. CONCLUSIONS: Hypotension after voiding in MSA patients may result from generalised autonomic dysfunction and abnormal abdominal straining, resulting in micturition syncope.

Management of urinary tract infections in female general practice patients.
Hummers-Pradier E, Ohse AM, Koch M, Heizmann WR, Kochen MM
Fam Pract 2005 Feb;22(1):71-7. Epub 2005 Jan 07.
BACKGROUND: Though guidelines for the management of urinary tract infections (UTI) exist in several European countries, little is known about GPs' adherence, and the appropriateness of their management with regard to antibiotic resistance. OBJECTIVES: To describe German GPs' management of female patients with symptoms of UTI, to assess the diagnostic accuracy of dipsticks in a German general practice

setting, to develop diagnostic prediction rules for culture-confirmed UTI, and to compare the adequacy of empirical treatment strategies and GPs' actual prescriptions. METHODS: In 36 (of 118 invited) teaching general practices, urine cultures and resistance testing were performed during 4 months on all symptomatic patients. GPs completed a questionnaire on each patients' symptoms, risk factors and treatment. Adequacy of different treatment approaches was calculated based on culture results. RESULTS: 445 adult women (76% of all patients) were included, with a median age of 53 years. Complicating factors were present in 27%. Urine culture revealed UTI in 77%. GPs' diagnostic accuracy, using both dipsticks and clinical impressions, was low. A positive nitrite test, dysuria and older age were the only predictive factors of culture-confirmed UTI, however the negative predictive value of dipsticks is low (35%). Empirical treatment of all symptomatic patients with either nitrofurantoin or fluoroquinolones would result in a higher rate of appropriate therapies than the individualized approach chosen by the GPs. CONCLUSION: Most patients with urinary symptoms were not treated according to current guidelines, and GPs' diagnostic and therapeutic accuracy was low. Empirical treatment of all symptomatic patients is probably the most effective policy, but implies unnecessary antibiotic prescriptions.

Bacterial Vaginosis and Risk of Pelvic Inflammatory Disease.

Ness RB, Hillier SL, Kip KE, Soper DE, Stamm CA, McGregor JA, Bass DC, Sweet RL, Rice P, Richter HE
Obstet Gynecol Surv 2005 Feb;60(2):99-100.

This multicenter study was conducted to investigate the association of pelvic inflammatory disease (PID) and bacterial vaginosis. Participants were recruited from women who were attending family planning, health, gynecology, and sexually transmitted disease (STD clinics in 5 medical centers. Eligible patients were women not seeking care for STD, but who were considered at high risk for acquiring STDs according to an algorithm that weighed age, race parity, number of sexual partners, habit of douching, and a history.The vaginal swabs were self-collected. Participating patients were instructed in the use of a cotton swab to collect their vaginal specimens. At intervals of 6 to 12 months, the self-obtained specimens were examined for the characteristics of bacterial vaginosis. A vaginal microflora gram stain score of 7 to 10 was considered bacterial vaginosis. Women who developed pelvic pain or who were positive for Neisseria gonorrhoeae or Chlamydia trachomatis underwent a clinical examination and endometrial biopsy for detection of PID. A diagnosis of PID required the presence of histologic endometritis and/or pelvic pain and tenderness accompanied by either a fever of 101 degrees F or higher, sedimentary rate greater than 15 mm/hr, elevated white blood count, or leukorrhea, mucopus, N. gonorrhea, or C. trachomatis in the lower genital tract.There were 1179 patients included in the analysis. The average follow up was 4 years. At the initial examination, 428 women had normal vaginal flora (36%), 280 had intermediate flora (29%), and 471 had bacterial vaginosis (40%). The baseline diagnosis was not associated with the rate of detection of PID over the 4 years of follow up. Nor was the development of PID significantly associated with age, race, education, income, smoking, sex during menses, condom use, or a history of STD or PID. Analyses according to various subgroups of patients (younger/older women, black/white women, women with/without a history of PID, with/without baseline gonococcal or chlamydia genital infection) found that only women who had a baseline report of 2 or more sexual partners in the previous 2 months and who had a baseline diagnosis of bacterial vaginosis were significantly more likely to have PID.An absence of hydrogen peroxide-producing lactobacillus was not associated with PID, even among the various subgroups. A baseline diagnosis of G. vaginalis or Gram-negative rod growth above 4 had no association with PID except in the subgroup of women who reported 2 or more sexual partners in the previous 2 months.Women with baseline diagnoses of N. gonorrhea or C. trachomatis were more likely to have PID.

EUS results of malignant rectal giant condyloma acuminatum (Buschke-Loewenstein tumor)]

Strock P, Barrioz T, Lauroy J, Babin P, Mordi A, Fort E, Laurin C, Sevestre C, Silvain C
Gastroenterol Clin Biol 2004 Aug-Sep;28(8-9):801-3.

Giant condyloma acuminatum is a large, exophytic, cauliflower-like lesion that usually affects the anogenital region. Localisation in the rectum is uncommon and has a high rate of malignant transformation but does not lead to develop distant metastases. For the time, we report the endosonographic appearance of a malignant intrarectal giant condyloma acuminatum.

The efficacy of a nerve stimulator (CaverMap) to enhance autonomic nerve identification and confirm nerve preservation during total mesorectal excision.

da Silva GM, Zmora O, Borjesson L, Mizhari N, Daniel N, Khandwala F, Efron J, Weiss EG, Nogueras JJ, Vernava AM 3rd, Wexner SD
Dis Colon Rectum 2004 Dec;47(12):2032-8.

PURPOSE: Sexual dysfunction after total mesorectal excision may be caused by injury to the autonomic nerves. During surgery, nerve identification is not always achieved, and, to date, there has been no method to objectively confirm nerve preservation. The aim of this study was to assess the efficacy of a nerve-stimulating device (CaverMap) to assist in the intraoperative identification of the autonomic nerves during

total mesorectal excision, and objectively confirm nerve preservation after proctectomy is completed. PATIENTS AND METHODS: Sexually active consecutive male patients undergoing total mesorectal excision were prospectively enrolled in this study. During pelvic dissection, the surgeon attempted to localize the hypogastric and cavernous nerves. CaverMap was used to confirm these findings and to facilitate the identification in cases of uncertainty. At the completion of proctectomy, the nerves were restimulated to ensure preservation. Factors that could affect the surgeon's ability to localize the nerves and CaverMap to confirm this were evaluated. RESULTS: Twenty-nine male patients with a median age of 58 years were enrolled in this study. An attempt to visualize the hypogastric nerves during dissection was made in 26 patients; the surgeon was able to identify the nerves in 19 (73 percent) patients. CaverMap successfully identified the nerves in six of the seven remaining patients, and failed to identify them in only one case. An attempt to localize the cavernous nerves during dissection was made in 13 patients, of which localization was successful in 8 (61.5 percent) patients. CaverMap improved the identification rate in four of the remaining five patients. After proctectomy, CaverMap successfully confirmed the preservation of both hypogastric and cavernous nerves in 27 of 29 (93 percent) patients. A history of previous surgery statistically correlated with failure to identify the hypogastric nerves by the surgeon (P = 0.005). There were no adverse events related to use of the device. CONCLUSION: CaverMap may be a useful tool to facilitate identification of the pelvic autonomic nerves during total mesorectal excision and to objectively confirm nerve preservation.

Hyperplastic polyposis and the risk of colorectal cancer.
Hyman NH, Anderson P, Blasyk H
Dis Colon Rectum 2004 Dec;47(12):2101-4.
PURPOSE: Hyperplastic polyps are usually considered to be an innocent finding with little or no potential to progress to colorectal cancer. However, recent literature suggests that some of these polyps may be morphologically and genetically distinct and lead to microsatellite unstable colorectal cancers. The purpose of this study was to define the cancer risk associated with hyperplastic polyposis. METHODS: All patients with hyperplastic polyposis diagnosed by a single colorectal surgeon at a university hospital were followed prospectively. The diagnosis of hyperplastic polyposis was made by the presence of more than 20 hyperplastic polyps distributed throughout the colon and/or a hyperplastic polyp at least 1 cm in size in diameter in the right colon. Patient demographics, family history, size, location, and distribution of polyps and the development of colorectal cancer were noted. RESULTS: Thirteen patients who met the criteria for hyperplastic polyposis were identified and followed prospectively. All of these patients had at least 30 polyps distributed throughout the colon, often > 100. Nine of 13 also had a hyperplastic polyp at least 1 cm in size, usually in the right colon. Of particular note, 7 of 13 patients (54 percent) were diagnosed with colorectal cancer during the study period. Four had cancer on initial diagnosis and three patients developed cancer despite frequent colonoscopic surveillance. Five of seven colorectal cancers were located in the right colon. CONCLUSIONS: Patients with hyperplastic polyposis are at high risk for colorectal cancer. Failure to identify this subset of patients could have dire consequences.

Robotic and laparoscopic surgery for treatment of colorectal diseases.
D'Annibale A, Morpurgo E, Fiscon V, Trevisan P, Sovernigo G, Orsini C, Guidolin D
Dis Colon Rectum 2004 Dec;47(12):2162-8.
PURPOSE: In the last ten years, several robotic systems have been developed to overcome the loss of the three-dimensional view and dexterity characteristic of laparoscopic surgery. The aim of this study was to compare the traditional laparoscopic approach and robotic techniques in the treatment of colorectal diseases. METHODS: The study compares a consecutive series of patients treated surgically for colorectal disease from June 2001 to May 2003 with the da Vinci robotic system (Intuitive Surgical) and a matched number of patients who underwent conventional laparoscopy during the same time interval. The factors analyzed were the time required to prepare the patient and the room, total time of surgery, length of specimens, number of lymph nodes retrieved, blood loss, complications, and postoperative results. RESULTS: The study included 106 patients (53 in each group). No differences were observed in total time of surgery (laparoscopic group, 222 +/- 77 minutes vs. robotic group, 240 +/- 61 minutes), specimen length (laparoscopic group, 29 +/- 11 cm vs. robotic group, 27 +/- 13 cm), or number of lymph nodes retrieved (laparoscopic group, 16 +/- 9 vs. robotic group, 17 +/- 10). It took significantly longer to prepare the operating room and patient in the robotic group (24 +/- 12 minutes) than in the laparoscopic group (18 +/- 7 minutes). There were three conversions to laparotomy in the laparoscopic group; in the robotic group, two cases were converted to laparoscopy and three to hand-assisted laparoscopy. No significant differences were observed between the two groups in terms of recovery of bowel function and postoperative hospital stay. CONCLUSIONS: Robot-assisted surgery proved to be as safe and effective as laparoscopic techniques in the treatment of colorectal diseases. Because of its dexterity and three-dimensional view, the da Vinci system was particularly useful in specific stages of the procedure, e.g., takedown of the splenic flexure,

dissection of a narrow pelvis, identification of nervous plexus, and handsewn anastomosis. The cost-effectiveness of the procedure still needs to be evaluated.

Prevention of peritoneal adhesions by intraperitoneal administration of vitamin E: an experimental study in rats.
de la Portilla F, Ynfante I, Bejarano D, Conde J, Fernandez A, Ortega JM, Carranza G
Dis Colon Rectum 2004 Dec;47(12):2157-61.
PURPOSE: Previous studies have shown dietary supplements of vitamin E to reduce the incidence of postoperative peritoneal adhesions. The objective of this study was to show the effect of intramuscular or intraperitoneal administration of vitamin E on peritoneal adhesions. METHODS: Eighty rats were divided into four groups: Group A (control), Group B (intramuscular vitamin E), Group C (intraperitoneal olive oil, the vehicle/diluent of vitamin E), and Group D (intraperitoneal vitamin E diluted in olive oil). The same experimental method was used in all rats to produce adhesions, consisting of cecal abrasion and ligature of the adjacent parietal peritoneum. The rats were killed at 14 days to assess the adhesions occurring. The results were analyzed using a chi-squared test. RESULTS: All animals in Groups A, B, and C had substantial adhesions. In Group D, 11 rats had insubstantial adhesions and only 4 had substantial adhesions. There were no significant differences between Groups A, B, and C in terms of percent formation of adhesions. A significant difference was found between Group D (vitamin E plus olive oil by the intraperitoneal route) and each of the experimental groups, A, B, and C ($P < 0.0005$). CONCLUSIONS: Our results show that intraperitoneal administration of vitamin E just before closing the laparotomy was effective for reducing adhesion formation. By contrast, the same effect was not achieved after intramuscular administration.

Salvage abdominoperineal resection after failure of conservative treatment in anal epidermoid cancer.
Ghouti L, Houvenaeghel G, Moutardier V, Giovannini M, Magnin V, Lelong B, Bardou VJ, Delpero JR
Dis Colon Rectum 2005 Jan;48(1):16-22.
PURPOSE: Radiotherapy alone or with combined chemotherapy is the first therapeutic option for epidermoid carcinoma of the anal canal. Failure of this conservative treatment may benefit of salvage abdominoperineal resection. This study was designed to analyze postoperative outcome and oncologic results in a single anticancer institution. METHODS: Medical charts of 36 patients (median age, 57.9 years) who underwent salvage abdominoperineal resection after failure of conservative treatment between 1987 and 2002 were reviewed retrospectively. There were 15 patients treated for immediate failure (Group I) and 21 patients for recurrence (Group II). Twenty-two patients have undergone primary use of flap reconstruction of the perineal wound. There were ten rectus abdominis myocutaneous flaps, nine omental flaps, two gracilis muscular flaps, and one combined flap. RESULTS: There was no postoperative mortality. Median follow-up was 67 (range, 15-155) months. Primary closure of the perineum was obtained in 33 patients (92 percent). Secondary wound breakdown occurred in 23 of 33 patients (70 percent). Complications unrelated to the perineal wound occurred in 13 patients. The overall crude five-year survival after salvage abdominoperineal resection was 69.4 percent. The crude five-year survival in Group I and Group II was 60.7 and 71.5 percent respectively ($P = 0.28$). The crude five-year, disease-free survival in Groups I and II was 31.1 and 48.2 percent respectively ($P = 0.10$). Twenty-three patients experienced recurrences after salvage abdominoperineal resection (64 percent) with a mean delay of 30 months. CONCLUSIONS: Despite high incidence of perineal morbidity, salvage abdominoperineal resection for epidermoid carcinomas of the anal canal has a high long-term survival rate.

A prospective, randomized, double-blind, placebo-controlled trial of retinol palmitate (vitamin A) for symptomatic chronic radiation proctopathy.
Ehrenpreis ED, Jani A, Levitsky J, Ahn J, Hong J
Dis Colon Rectum 2005 Jan;48(1):1-8.
PURPOSE: This study was designed to determine whether oral retinol palmitate (vitamin A) can reduce the symptoms of radiation proctopathy. METHODS: A randomized, double-blind trial comparing retinol palmitate (10,000 IU by mouth for 90 days) to placebo was conducted. Eligible patients were more than six months postpelvic radiotherapy and had significant symptoms as measured with the Radiation Proctopathy System Assessments Scale. Nineteen patients were randomized in total: ten to retinol palmitate and nine to placebo. The Radiation Proctopathy System Assessments Scale scores before and every 30 days for 90 days were measured. Five placebo nonresponders were crossed over to the retinol palmitate for another 90 days. Response was defined as a reduction in two or more symptoms by at least two Radiation Proctopathy System Assessments Scale points. RESULTS: Seven of ten retinol palmitate patients responded, whereas two of nine responded to placebo ($P = 0.057$). Mean pre-post-treatment change in Radiation Proctopathy System Assessments Scale (delta Radiation Proctopathy System Assessments Scale) in the retinol palmitate group was 11 +/- 5, whereas delta Radiation Proctopathy System Assessments Scale in the

placebo group was 2.5 +/- 3.6 (P = 0.013, Mann-Whitney U test). Additionally, all five placebo nonresponders who were crossed over to treatment with retinal palmitate responded to treatment. CONCLUSIONS: In our trial, retinol palmitate significantly reduced rectal symptoms of radiation proctopathy, perhaps because of wound-healing effects. The current results can serve as the foundation for future trials examining retinol palmitate in the multi-institutional setting.

Functional and physiologic assessment of the colonic reservoir or side-to-end anastomosis after low anterior resection for rectal cancer: a two-year follow-up.
Machado M, Nygren J, Goldman S, Ljungqvist O
Dis Colon Rectum 2005 Jan;48(1):29-36.
PURPOSE: Functional disturbances are common after anterior resection for rectal cancer. This study was designed to compare functional and physiologic outcome after low anterior resection and total mesorectal excision with a colonic J-pouch or a side-to-end anastomosis. METHODS: Functional and physiologic variables were analyzed in patients randomized to a J-pouch (n = 36) or side-to-end anastomosis (n = 35). Postoperative functional outcome was investigated with questionnaires. Anorectal manometry was performed preoperatively and at six months, one year, and two years postoperatively. RESULTS: There was no statistical difference in functional outcome between groups at two years. Maximum neorectal volume increased in both groups but was approximately 40 percent greater at two years in pouches compared with the side-to-end anastomosis. Anal sphincter pressures volumes were halved postoperatively and did not recover during follow-up of two years. Male gender, low anastomotic level, pelvic sepsis, and the postoperative decrease of sphincter pressures were independent factors for more incontinence symptoms. CONCLUSIONS: Colonic J-pouch and side-to-end anastomosis gives comparable functional results two years after low anterior resection. Neorectal volume had no detectable influence on function. There was a pronounced and sustained postoperative decrease in sphincter pressures.

Risk factors for perineal wound complications following abdominoperineal resection.
Christian CK, Kwaan MR, Betensky RA, Breen EM, Zinner MJ, Bleday R
Dis Colon Rectum 2005 Jan;48(1):43-8.
PURPOSE: Perineal wound complications are common following abdominoperineal resection. This study investigates the factors contributing to these complications. METHODS: Patients undergoing abdominoperineal resection at our institution from June 1997 to May 2003 were reviewed. Significant predictors associated with minor (separation <2 cm, stitch abscesses, or sinus tracts) or major (>2 cm of separation, reoperation required, or readmission) wound complications were ascertained. RESULTS: Of 153 patients, there were 22 major (14 percent) and 32 minor (24 percent) wound complications. Patients with anal cancer had a higher rate of major complications than those with rectal cancer or inflammatory bowel disease. Minor wound complications were more common in patients with anal cancer and inflammatory bowel disease than those with rectal cancer. Factors associated with a higher rate of major wound complications included flap closure, tumor size, body mass index, diabetes, and indication for the procedure. When the subset of patients with rectal cancer was considered, higher rates of major wounds were associated with increased body mass index, diabetes, and stage. Minor complications were associated with a two-team approach and increasing body mass index. CONCLUSIONS: This is currently the largest review of perineal wound complications following abdominoperineal resection. Patients with anal cancer and inflammatory bowel disease were at higher risk for perineal wound complications than those with rectal cancer. Preoperative radiation and primary closure were not associated with increased complications following abdominoperineal resection for rectal cancer.

Sentinel lymph node mapping for adenocarcinoma of the colon does not improve staging accuracy.
Read TE, Fleshman JW, Caushaj PF
Dis Colon Rectum 2005 Jan;48(1):80-5.
PURPOSE: This study was designed to: determine the efficacy of sentinel lymph node mapping in patients with intraperitoneal colon cancer; and create an algorithm to predict potential survival benefit by using best-case estimates in favor of sentinel node mapping and lymph node ultraprocessing techniques. METHODS: Forty-one patients with intraperitoneal colon cancer undergoing colectomy with curative intent were studied prospectively. After mobilization of the colon and mesentery, 1 to 2 ml of isosulfan blue dye was injected subserosally around the tumor. The first several nodes highlighted with blue dye were identified as sentinel nodes. Additional nodes were identified by the pathologist in routine fashion by manual dissection of the mesentery. All nodes were processed in routine fashion by bivalving and hematoxylin and eosin staining. To create an algorithm to predict potential survival benefit of sentinel node mapping and lymph node ultraprocessing techniques, assumptions were made using data from the literature. All bias was directed toward success of the techniques. RESULTS: Three of 41 patients (7 percent) did not undergo injection of dye and were excluded from further analysis. Stage of disease in the remaining 38 patients was: I, n = 10 (26

percent); II, n = 15 (39 percent); III, n = 11 (29 percent); IV, n = 2 (5 percent). At least one sentinel node was identified in 30 of 38 patients (79 percent). The median number of sentinel nodes identified was two (range, 1-3). Median total nodal retrieval was 14 (range, 7-45). All nodes were negative in 26 of 38 patients (68 percent). Sentinel nodes and nonsentinel nodes were positive in 2 of 38 patients (5 percent). Sentinel nodes were the only positive nodes in 1 of 38 patients (3 percent). Sentinel nodes were negative and nonsentinel nodes were positive in 9 of 38 patients (24 percent). Thus, sentinel node mapping would have potentially benefited only 3 percent, and failed to accurately identify nodal metastases in 24 percent of the patients in our study. To create a survival benefit algorithm, we assumed the following: combined fraction of Stage I and II disease (0.5); fraction understaged by bivalving and hematoxylin and eosin staining that would have occult positive nodes by more sophisticated analysis (0.15); fraction of occult positive nodes detected by sentinel node mapping (0.9); and survival benefit from chemotherapy (0.33). Thus, the fraction of patients benefiting from sentinel lymph node mapping and lymph node ultraprocessing techniques would be 0.02 (2 percent). CONCLUSIONS: Sentinel node mapping with isosulfan blue dye and routine processing of retrieved nodes does not improve staging accuracy in patients with intraperitoneal colon cancer. Even using best-case assumptions, the percentage of patients who would potentially benefit from sentinel lymph node mapping is small.

What next after infliximab?
Baidoo L, Lichtenstein GR
Am J Gastroenterol 2005 Jan;100(1):80-3.
The use of infliximab (Remicade) has revolutionized the care of Crohn's disease (CD) patients who have proved refractory to standard treatment. The use of infliximab is very well tolerated in the majority of patients but in a small subset of patients may lead to the production of antibodies (termed "antibodies to infliximab"-ATI). The production of these antibodies has been associated with the development of both acute and delayed infusion reactions, although even in patients who develop ATIs, these reactions are relatively uncommon. Nonetheless, these reactions may occasionally be severe enough to lead to intolerance to infliximab. Another group of patients, after initially having excellent responses to infliximab, experience an attenuated response or loss of response over time. What is the cause of this loss of efficacy? ATIs may play a role in some patients but other potential reasons for this phenomenon have provoked much debate. The importance of other cytokines after TNF-alpha has been neutralized may be relevant as (this has been shown to be the case in rheumatoid arthritis (RA) is the idea of beneficial autoimmunity production to TNF-alpha. (Wildbaum G, Nahir MA, Karin N. Beneficial autoimmunity to proinflammatory mediators restrains the consequences of self-destructive immunity. Immunity 2003;19:679-88.) It has been shown that during the course of an autoimmune condition, the immune system mounts a beneficial autoantibody response to proinflammatory mediators. This response counteracts, to a certain degree, the autoimmune pathology. This natural counteraction has been illustrated in animal models of autoimmunity, and there has been evidence demonstrated that this occurs in human RA. Whether this occurs in Crohn's is unknown; infliximab is a chimeric monoclonal antibody containing an approximately 25% murine region. It had been hoped that the development of humanized or fully human monoclonal antibodies would provide therapeutic antibodies that did not induce an immune response. While this has unfortunately not proven to be the case-these products still have significant immunogenicity-these products do present an alternative therapy when infliximab cannot be used. In light of this, adalimumab (Humira) a human monoclonal antibody used for treating rheumatologic conditions has been investigated as an alternate treatment for patients with CD who after initially responding to infliximab experience intolerance or loss of efficacy. Is this a viable alternative?

Effectiveness of devices purported to reduce flatus odor.
Ohge H, Furne JK, Springfield J, Ringwala S, Levitt MD
Am J Gastroenterol 2005 Feb;100(2):397-400.
OBJECTIVE: A variety of charcoal-containing devices are purported to minimize problems with odoriferous rectal gas; however, the evidence supporting the efficacy of these products is virtually all anecdotal. We objectively evaluated the ability of these devices to adsorb two malodorous, sulfide gases (hydrogen sulfide and methylmercaptan) instilled at the anus. MATHODS: Via a tube, 100 ml of nitrogen containing 40 ppm of sulfide gases and 0.5% H(2) was instilled at the anus of six healthy volunteers who wore gas impermeable Mylar((R)) pantaloons over their garments. Since H(2) is not adsorbed by charcoal, the fraction of the sulfide gases removed could be determined from the concentration ratio of sulfide gas: H(2) in the pantaloon space relative to the ratio in instilled gas. RESULTS: Measurements with no device in place showed that subjects' garments removed 22.0 +/- 5.3% of the sulfide gases, and results obtained with each device were corrected for this removal. The only product that adsorbed virtually all of the sulfide gases was briefs constructed from an activated carbon fiber fabric. Pads worn inside the underwear removed 55-77% of the sulfide gases. Most cushions were relatively ineffective, adsorbing about 20% of the gases. CONCLUSIONS: The ability of charcoal-containing devices to adsorb odoriferous rectal gases is limited by incomplete exposure of the

activated carbon to the gases. Briefs made from carbon fiber are highly effective; pads are less effective, removing 55-77% of the odor; cushions are relatively ineffective. (Am J Gastroenterol 2005;100:1-4).

Calcium supplements to prevent colorectal adenomas.
Sandler RS
Am J Gastroenterol 2005 Feb;100(2):395-6.
Calcium supplements have been shown to decrease the risk of colorectal adenomas. In this issue of the Journal, Shaukat et al. report the results of a systematic review and metaanalysis of randomized controlled trials of calcium supplementation. The authors statistically combined the data from the three trials that met strict eligibility criteria. The overall relative risk was 0.80 (95% CI: 0.68-0.93) and the number needed to treat was 14. The results of this metaanalysis support a preventive role for calcium supplements. (Am J Gastroenterol 2005;100:395-396).

Role of supplemental calcium in the recurrence of colorectal adenomas: a metaanalysis of randomized controlled trials.
Shaukat A, Scouras N, Schunemann HJ
Am J Gastroenterol 2005 Feb;100(2):390-4.
BACKGROUND: Colorectal adenomas are neoplastic growths that are important targets for chemoprevention. Dietary calcium is thought to play an important role in chemoprevention. However, the role of calcium supplementation for preventing recurrence of adenomas is controversial. We performed a systematic review and metaanalysis to study the role of calcium supplementation in preventing recurrence of adenomas. METHODS: We searched electronic bibliographic databases (Cochrane Database of Systematic Reviews, Cochrane Controlled Trials Register, CINAHL, EMBASE, and MEDLINE) and contacted authors to identify potentially eligible studies. RESULTS: We identified three trials including 1,485 subjects with previously removed adenomas who were randomized to calcium versus placebo supplementation. The study endpoint was recurrence of adenomas at the end of 3-4 yr in 1,279 patients who completed the trials. We found that the recurrence of adenomas was significantly lower in subjects randomized to calcium supplementation (RR: 0.80, CI: 0.68, 0.93; p-value = 0.004). CONCLUSIONS: This systematic review and metaanalysis suggest that calcium supplementation prevents recurrent colorectal adenomas. (Am J Gastroenterol 2005;100:390-394).

[When is standard stool culture justified in adults with nosocomial diarrhea?]
Mathieu A, Tachet A, Pariente A
Presse Med 2005 Jan;34(2 Pt 1):81-4.
OBJECTIVE: To assess the diagnostic efficacy, cost and possible corrective measure of the indications for routine stool cultures in nosocomial diarrhoea in adults. METHODS: A retrospective study over a 10-month period of 660 standard stool cultures, 256 of which were conducted after the 3rd day of hospitalisation, conducted in 528 patients at the hospital centre in Pau. RESULTS: The positivity rate of the stool cultures was of 26/336 patients (7.7%), and of 37/404 examinations (9%) within the first three days of hospitalisation, versus 2/192 patients (1%) and 3/256 examinations (1%) after the 3rd day of hospitalisation ($p<0.05$). In 83 patients a stool culture was repeated, and was only positive in one patient with an initially negative culture. If a stool culture had not been performed after the 3rd day, 2 infections would not have been diagnosed (1 salmonella and 1 K. oxytoca) and 256 stool cultures could have been economised (estimated cost: 6 144). Moreover, by eliminating repeated stool cultures, 3 infections would not have been diagnosed (2 salmonella, and 1 K. oxytoca) and 321 stool cultures would have been avoided (estimated cost: 7 704). If the stool cultures had been conducted after the 3rd day of hospitalisation only in those aged over 64 with comorbidity, immunosuppression or within the context of an epidemic, no false negative would have been observed and 149 stool cultures would have been economised (estimated cost: 3 576). The positivity rate of the search for C. difficile, only conducted on explicit request from the practitioners, was of 5/23 (22%) and 4/28 (14%) before and after the 3rd day of hospitalisation (non-significant difference). CONCLUSION: Restriction of standard stool cultures after the 3rd day of hospitalisation to patients aged over 64 with comorbidity, to the immunodepressed, and within an epidemic context would economise around 4 300 per month in a medium-sized general hospital. No systematic restriction should be applied to the search for C. difficile.

[Primary anorectal melanoma.]
Haddad F, Nadir S, Benkhaldoun L, Alaoui R, Cherkaoui A
Presse Med 2005 Jan;34(2 Pt 1):85-8.
OBJECTIVE: To specify the clinical and therapeutic aspects of anorectal melanoma. METHODS: Nine cases of malignant anorectal melanoma were managed in the department of gastroenterology of the Ibn Rochd university hospital in Casablanca between 1984 and 2002. RESULTS: There were 5 men and 4 women, with a mean age of 61 years. Clinical symptoms were dominated by rectal bleeding (7 cases) and rectal

syndrome (5 cases). The tumor was blackish in 4 cases. Extension staging showed metastases in the liver in one patient and in the bones in another. One patient had undergone abdominoperineal resection, two transanal tumor resection, and in one patient radiotherapy was applied. Five patients refused any treatment. The outcome was marked by remission in 2 cases with an event free survival respectively of 10 and 21 months. Three patients died because of visceral metastases. Four patients were lost to follow-up. DISCUSSION: The prognosis of anorectal melanoma is frightening because of late diagnosis and high malignancy potential. Treatment is based essentially on surgery.

Colorectal cancer.
Eustace K
Lancet 2005 Jan 8;365(9454):166.

Colorectal cancer.
Weitz J, Koch M, Debus J, Hohler T, Galle PR, Buchler MW
Lancet 2005 Jan 8;365(9454):153-65.
Every year, more than 945000 people develop colorectal cancer worldwide, and around 492000 patients die. This form of cancer develops sporadically, in the setting of hereditary cancer syndromes, or on the basis of inflammatory bowel diseases. Screening and prevention programmes are available for all these causes and should be more widely publicised. The adenoma-carcinoma sequence is the basis for development of colorectal cancer, and the underlying molecular changes have largely been identified. Prognosis depends on factors related to the patient, treatment, and tumour, and the expertise of the treatment team is one of the major determinants of outcome. New information on the molecular basis of this cancer have led to the development of targeted therapeutic options, which are being tested in clinical trials. Further clinical progress will largely depend on the broader implementation of multidisciplinary treatment strategies following the principles of evidence-based medicine.

Antibiotics for inflammatory bowel disease: do they work?
Guslandi M
Eur J Gastroenterol Hepatol 2005 Feb;17(2):145-7.
A growing amount of evidence indicates that the intestinal flora plays a pathogenic role in inflammatory bowel disease (IBD): hence, the use of anti-bacterial agents as ancillary treatment in patients with ulcerative colitis, or Crohn's disease. While the results with anti-tubercular agents remain inconclusive, antibiotic treatment in IBD is usually carried out with either metronidazole or ciprofloxacin, or both. Controlled trials are scarce and, although both antibiotics appear to provide clinical benefit, definitive conclusions cannot be drawn and precise therapeutic guidelines cannot be suggested. The best results are achieved in the long-term treatment of Crohn's disease and in the management of pouchitis, or of perianal Crohn's disease. Long-term tolerability of antibiotic treatment may be poor due to the appearance of systemic side-effects. The use of non-absorbable anti-bacterial agents such as rifaximin deserves further investigation.

Determination of the peritoneal reflection using intraoperative proctoscopy.
Najarian MM, Belzer GE, Cogbill TH, Mathiason MA
Dis Colon Rectum 2004 Dec;47(12):2080-5.
PURPOSE: Rectal carcinomas are amenable to transanal excision in 3 to 5 percent of cases. Location below the peritoneal reflection is one requirement for transanal excision and transanal endoscopic microsurgery. The location of the peritoneal reflection has not been extensively studied in living patients. METHODS: This study investigated the location of the peritoneal reflection in 50 patients undergoing laparotomy. The distance from the anal verge to the peritoneal reflection was measured in each patient via simultaneous intraoperative proctoscopy and intra-abdominal visualization of the peritoneal reflection. The mean distance to the peritoneal reflection, range of measurements, and complications of proctoscopy were recorded. RESULTS: Intraoperative proctoscopy was performed on 50 patients after informed consent. The mean lengths of the peritoneal reflection were 9 cm anteriorly, 12.2 cm laterally, and 14.8 cm posteriorly for females, and 9.7 cm anteriorly, 12.8 cm laterally, and 15.5 cm posteriorly for males. The lengths of the anterior, lateral, and posterior peritoneal measurements were statistically different from one another, regardless of gender ($P < 0.01$). There were no complications of proctoscopy. CONCLUSIONS: Our data indicated that the peritoneal reflection is located higher on the rectum than reported in autopsy studies, and that there is no difference between males and females. Knowledge of the location and position of a rectal carcinoma in relationship to the peritoneal reflection will help the surgeon optimize the use of transanal techniques of resection.

Is endoscopy necessary for the measurement of disease activity in ulcerative colitis?
Higgins PD, Schwartz M, Mapili J, Zimmermann EM

Am J Gastroenterol 2005 Feb;100(2):355-61.
OBJECTIVES: Many disease activity indices are used to measure ulcerative colitis. Invasive indices incorporate an endoscopic score, while noninvasive indices do not require endoscopy. In clinical practice, many patients are treated based on their symptoms without endoscopic evaluation. However, invasive indices are commonly used in clinical research. Our objective was to determine whether endoscopy is necessary for the assessment of disease activity in patients with ulcerative colitis. METHODS: Sixty-six consecutive ulcerative colitis patients were evaluated with invasive indices: the St. Mark's index and the Ulcerative Colitis Disease Activity Index (UCDAI); and noninvasive indices: the Simple Clinical Colitis Activity Index (SCCAI) and the Seo index. The correlations between the indices were measured. The contribution of the endoscopic items was measured with linear regression modeling. The overlap of endoscopy with other items in the standard indices was determined through factor analysis. RESULTS: The two noninvasive indices correlated well with the invasive St. Mark's Index (SCCAI 0.86, Seo 0.70). After adjusting for the three noninvasive UCDAI items, the UCDAI endoscopy item predicted only 0.04% of the variance in the St. Mark's index. Factor analysis demonstrated that this is because the endoscopy items in the invasive indices correlate with stool frequency and stool blood items. CONCLUSIONS: Endoscopy items contribute little additional information to indices of disease activity in ulcerative colitis. The clinical practice of treating patients based on reported symptoms is appropriate. The use of noninvasive indices in clinical trials could lower study costs and may increase subjects' willingness to participate. (Am J Gastroenterol 2005;100:355-361).