FORUM 2005 07

Systems approach to reduce errors in surgery.
Dankelman J, Grimbergen CA
Surg Endosc 2005 Jul 14;.
Reducing the number of medical errors significantly is the challenge for the coming decade. In medicine and in surgery, in particular, errors are traditionally treated as being committed by individuals. To reduce human errors, two approaches can be used: the person approach and the systems approach. In the systems approach, the operator is not blamed, but the system is analyzed in order to find the causes of errors. Furthermore, defenses are built into the system so that errors will not result in an adverse outcome anymore. This article aims to provide insight into the systems approach.

Reducing errors in the operating room Surgical proficiency and quality assurance of execution.
Cuschieri A
Surg Endosc 2005 Jul 14;.
Technical operative errors cause surgical operative morbidity and adversely affect the clinical outcome of patients. Surgical proficiency thus underpins good and safe practice. In this context, standardization of endoscopic surgical operations and their execution are essential for the procurement and maintenance of quality assurance in endoscopic surgical practice. There is no clash between individual- (surgical proficiency) and system-based defense systems in the prevention of surgical errors - both underpin safe surgical practice. Although more human factors and surgical research are needed, it is possible to formulate and adopt a surgical error reduction system for endoscopic operations based on standardization of operations, surgical operative proficiency, and human reliability assessment and its related clinical counterpart, observational clinical human reliability assessment.

Marketing your urologic practice-ethically, effectively, and economically.
Baum N
Urol Clin North Am 2005 Aug;32(3):299-308.

Strategic planning and budgeting.
Fabrizio NA, Hertz KT
Urol Clin North Am 2005 Aug;32(3):291-7.

Office management: personnel issues overview.
Andrew DM
Urol Clin North Am 2005 Aug;32(3):253-62.

1 – THE PELVIC FLOOR 2005 07

Endotoxin: The uninvited guest.
Gorbet MB, Sefton MV
Biomaterials 2005 Dec;26(34):6811-7.
In the laboratory environment where biomaterials are synthesized and their biocompatibility assessed, we find that endotoxin contamination is hard to avoid and must not be ignored. In those relatively few cases where endotoxin was known to be present, it has been clearly shown that endotoxin can significantly affect the biological response observed and hence confound any effect of the material. This short review explains what endotoxin is, how to test for it and remove it and what its effect on the biological response to biomaterials is. We advocate routine testing of endotoxin on biomaterials and of reagents used in experimental evaluation of biomaterials and this should be the responsibility of every scientist to ensure the validity of any biomaterial study.

Peri-operative physiotherapy improves outcomes for women undergoing incontinence and or prolapse surgery: Results of a randomised controlled trial.
Jarvis SK, Hallam TK, Lujic S, Abbott JA, Vancaillie TG
Aust N Z J Obstet Gynaecol 2005 Aug;45(4):300-3.
Abstract Background: Urinary incontinence and pelvic organ prolapse are common complaints in women. Physiotherapy and surgery to correct these conditions are often seen as mutually exclusive. No study has yet investigated their synergistic potential. Aim: This study aimed to investigate the role of peri-operative physiotherapy in women undergoing corrective surgery for pelvic organ prolapse and/or incontinence. Methods: In this randomised controlled trial, 30 women underwent preoperative physiotherapy and 30 others had no physiotherapy prior to their incontinence and or prolapse surgeries. Comparison was performed on

the basis of the following tests: paper towel test, urinary symptom specific health and quality of life questionnaire, frequency/volume chart and pelvic floor muscle manometry. Women were followed up for 3 months. Results: Both groups showed improvement in urinary continence. Significant group differences were noted in the quality of life questionnaire (P= 0.004), urinary symptoms (P= 0.017) and maximum pelvic floor muscle squeeze on manometry (P= 0.022). Diurnal frequency analysis indicates that there is a significant difference in favour of the treatment group (P= 0.024). Conclusion: Routine pre and post operative physiotherapy interventions improve physical outcomes and quality of life in women undergoing corrective surgery for urinary incontinence and or pelvic organ prolapse.

Patients' knowledge of potential pelvic floor changes associated with pregnancy and delivery.
McLennan MT, Melick CF, Alten B, Young J, Hoehn MR
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 8;.
Physicians cite pelvic floor injury as a major reason for Cesarean section as their personal preferred delivery mode. This study was undertaken to determine whether patients receive information about possible pelvic floor complications of pregnancy/delivery. Day 1 post-partum women completed a 52-item questionnaire assessing information given during routine antenatal care. Pelvic floor and general questions were intermixed. Of the 232 patients, the mean age was 26.9 years, with 59.5% white, 32.8% African-American and 7.7% other. Most (84.5%) had at least grade 12 education. The following percentage of patients reported receiving no information about: Kegel exercises 46.1%; episiotomy 51.3%; urinary incontinence 46.6%; fecal incontinence 80.6%; change in vaginal caliber 72.8%; neuropathy 84.9%. Counseling on all of these issues occurred significantly less frequently than education on general pregnancy topics. Our results suggest that knowledge and instruction of pelvic floor risks is very much lacking and provide us with an impetus to develop educational tools.

2 – FUNCTIONAL ANATOMY 2005 07

Morphology of the suburethral pubocervical fascia in women with stress urinary incontinence: a comparison of histologic and MRI findings.
Tunn R, Rieprich M, Kaufmann O, Gauruder-Burmester A, Beyersdorff D
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 21;:35-53.
To correlate MRI with histologic findings of the suburethral pubocervical fascia in women with urodynamic stress incontinence. Thirty-one women with urodynamically proven stress urinary incontinence without relevant prolapse underwent preoperative MRI. Tissue specimens obtained from the pubocervical fascia were examined immunohistochemically (types I and III collagen, smooth muscle actin) and the results compared with the MRI findings. MRI demonstrated an intact pubocervical fascia in 61.3% of the cases and a fascial defect in 38.7%. A fascial defect demonstrated by MRI was associated with a decrease in actin ($P<0.09$) and an increase in collagen III ($P<0.01$) compared to an intact fascia. In women with stress urinary incontinence, smooth muscle actin in the pubocervical fascia is decreased, changed in structure, and replaced by type III collagen. MRI allows evaluation of the pubocervical fascia and its morphologic changes.

Relationship between ankle position and pelvic floor muscle activity in female stress urinary incontinence.
Chen CH, Huang MH, Chen TW, Weng MC, Lee CL, Wang GJ
Urology 2005 Jul 22;.
OBJECTIVES: To assess the influence of ankle position on pelvic floor muscle (PFM) activity in women with stress urinary incontinence. METHODS: A total of 39 women, ranging in age from 38 to 72 years and clinically diagnosed with stress urinary incontinence, participated in testing of PFM activity changes during various pelvic tilt angles created by horizontal, dorsiflexed, and plantar flexed ankle positions. PFM activity was measured by an intravaginal probe with surface electromyographic electrodes. An adjustable angle platform was used to set the ankle in each of the positions to create the various pelvic tilt postures. RESULTS: Significant differences were found in resting PFM activity between horizontal standing with the ankle in the neutral position and standing with the ankle in plantar flexion ($P = 0.01$). Patients with ankle dorsiflexion also had greater resting PFM activity than with ankle plantar flexion ($P <0.01$). Subjects showed significant changes in mean maximal PFM activity when standing with the ankle dorsiflexed and horizontal or in plantar flexion. CONCLUSIONS: A standing posture that includes various ankle positions effectively facilitates PFM activity through enhanced pelvic tilt. We recommend these ankle positions as an adjunctive option combined with PFM training for stress urinary incontinence.

What is the optimum methodology for the clinical measurement of resting anal sphincter pressure?
Prott G, Hansen R, Badcock C, Kellow J, Malcolm A
Neurogastroenterol Motil 2005 Aug;17(4):595-9.

Abstract There are conflicting recommendations from consensus groups with regard to the assessment of resting anal sphincter pressure. Our aims were to evaluate and compare the performance of three recognized techniques for the clinical measurement of resting anal sphincter pressure. Methods: In each of 54 patients presenting for anorectal manometry, and suffering from constipation or fecal incontinence, three different techniques for assessment of resting anal pressure were undertaken, namely stationary, stationary pull-through and slow pull-through techniques. Resting anal sphincter pressures were compared between groups and between techniques. Results: Mean resting anal sphincter pressure was lower with stationary, compared with stationary pull-through and slow pull-through, techniques (P </= 0.002). Resting pressure was higher for constipation than incontinence regardless of technique used (P < 0.00001). The techniques were highly correlated with each other (P < 0.0001). The stationary pull-through technique conferred a minor advantage in the discrimination between constipation and incontinence. The stationary technique required significantly less time for completion (P < 0.0001). Conclusion: Resting anal sphincter pressure varies according to the specific technique employed, yet each technique is valid. The stationary pull-through technique confers a minor advantage in clinical discrimination of patients, but the stationary technique is more time-efficient. Standardized anal sphincter testing should be established to enable inter-laboratory comparisons.

Perceptual sensitivity and response bias during rectal distension in patients with irritable bowel syndrome.
Corsetti M, Ogliari C, Marino B, Basilisco G
Neurogastroenterol Motil 2005 Aug;17(4):541-7.
Abstract Patients with irritable bowel syndrome (IBS) report an increased frequency of sensations during rectal distension in comparison with healthy subjects. This alteration might be due to a psychological response bias leading patients to over report their sensations. The aim of this study was to measure perceptual sensitivity and response bias during rectal distension in healthy subjects and IBS patients using the sensory decision theory (SDT). Thirteen healthy subjects and 22 IBS patients underwent five rectal distensions up to 100 mL, five up to 200 mL and five sham distensions. They were asked to identify the distension by means of an electronic marker. Perceptual sensitivity and response bias were calculated according to the SDT. The patients identified a more 100 mL distensions than the healthy subjects (P = 0.02), whereas there was no difference in the number of identified 200 mL and sham distensions between the two groups. The perceptual sensitivity of IBS patients was significantly greater during 100 mL (P = 0.01), but not during 200 mL distensions. The response bias was not significantly different between the two groups. These data suggest that the increased frequency of sensations reported by IBS patients is not due to a psychological response bias.

Central cholecystokinin activity in irritable bowel syndrome, panic disorder, and healthy controls.
Koszycki D, Torres S, Swain JE, Bradwejn J
Psychosom Med 2005 Jul-Aug;67(4):590-5.
OBJECTIVE: Irritable bowel syndrome (IBS) and panic disorder (PD) coexist with a high frequency. However, the nature of this relationship remains obscure. We have proposed that PD and IBS may share a common dysfunction of the central cholecystokinin (CCK) system. To test this hypothesis, we assessed whether the enhanced panicogenic response to CCK-tetrapeptide (CCK-4) observed in PD is also present in IBS. METHODS: Eight psychiatrically healthy IBS patients, 8 PD patients with no history of IBS, and 12 normal controls received a bolus injection of CCK-4 and placebo on two separate days in a double-blind, randomized fashion. RESULTS: Consistent with previous findings, panicogenic sensitivity to CCK-4 was enhanced in PD patients relative to controls. In contrast, IBS patients exhibited a response that was comparable to controls. Interestingly, CCK-4-induced nausea and abdominal distress were decreased in IBS patients relative to the other groups. No diagnostic difference was noted for cardiovascular response to CCK-4. CONCLUSION: These data indicate that IBS patients with no lifetime psychiatric history do not share the CCK-2 receptor dysfunction implicated in the pathophysiology of PD and that this dysfunction may not be a common mechanism for both CNS and enteric nervous system disorders. Nevertheless, the results suggest that a dysfunction of the CCK system may be involved in the pathophysiology of some enteric symptoms associated with IBS.

Colon motility during a panic attack.
Hyman PE, Cocjin J
Psychosom Med 2005 Jul-Aug;67(4):616-7.
OBJECTIVE: To document the temporal relationship between a panic attack and high amplitude propagating contractions. METHODS: Colon manometry was used to discriminate between functional defecation problems and colon neuromuscular disease. By chance, the patent developed a panic attack during the test session. RESULTS: Coincident with the panic attack, there was a continuous series of high amplitude

propagating contractions. There were 15 high amplitude propagating contractions over 45 minutes, initially at a rate of 4 per 10 minutes, gradually slowing to 1.5 per 10 minutes. CONCLUSIONS: These data may explain the cause for gastrointestinal distress and diarrhea in some patients with panic attacks.

3 – DIAGNOSTICS 2005 07

Voiding function in pregnancy and puerperium.
Dietz HP, Benness CJ
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):151-4; discussion 154. Epub 2004 Sep 25.
Bladder function changes significantly in pregnancy. This study prospectively examined voiding function in a nulliparous cohort. A total of 200 nulliparous women were seen twice during pregnancy and 2-5 months postpartum. Flowmetry, ultrasound estimation of residual urine and translabial ultrasound of bladder neck mobility were evaluated. The Liverpool nomograms were used to calculate maximum and average flow rate (MFR and AFR) centiles. Flowmetry was available on 186 women at 6-18 weeks, 165 women at 32-39 weeks and 162 women 2-5 months postpartum. Voided volumes decreased from 253 to 180 ml during pregnancy ($p<0.001$), increasing again to 198 ml postpartum. MFR centiles increased during pregnancy [from 49 (SD 28) to 58 (SD 29), $p=0.003$], and this trend continued postpartum [to 61.8 (SD 26.8), $p<0.001$]. Changes correlated weakly but significantly with changes in several parameters of bladder neck mobility (e.g. urethral rotation and MFR centiles, $r=0.182$, $p=0.027$). MFR and AFR centiles increase in pregnancy and with childbirth, and increases correlate weakly with changes in bladder neck mobility.

Defecatory symptoms during and after the first pregnancy: prevalences and associated factors.
van Brummen HJ, Bruinse HW, van de Pol G, Heintz AP, van der Vaart CH
Int Urogynecol J Pelvic Floor Dysfunct 2005 Aug 3;.
A prospective cohort study was undertaken to evaluate the impact of pregnancy and the first delivery on the defecatory symptoms and to identify associated factors. Included were 487 nulliparous pregnant women who completed four questionnaires. Flatus and fecal incontinence, constipation, and painful defecation are already present in early pregnancy and are significantly predictive for reporting symptoms after delivery, except for fecal incontinence. A third or fourth degree sphincter tear was significantly associated with fecal incontinence 12 months postpartum and with de novo fecal incontinence, while other factors associated with de novo onset of symptoms were of borderline significance. Defecation symptoms already present in early pregnancy are highly predictive for reported symptoms at 12 months postpartum except for fecal incontinence that is mainly related to anal sphincter lesion. Therefore, investigating the effects of childbirth in general on the anorectal function is not justified without knowledge of this function during pregnancy.

Office urodynamics.
Cole EE, Dmochowski RR
Urol Clin North Am 2005 Aug;32(3):353-70.

Office urologic ultrasound.
McAchran SE, Dogra V, Resnick MI
Urol Clin North Am 2005 Aug;32(3):337-52.

Towards a better understanding of abdominal bloating and distension in functional gastrointestinal disorders.
Houghton LA, Whorwell PJ
Neurogastroenterol Motil 2005 Aug;17(4):500-11.
Abstract Abdominal bloating is an extremely common symptom affecting up to 96% of patients with functional gastrointestinal disorders and even 30% of the general population. To date bloating has often been viewed as being synonymous with an actual increase in abdominal girth, but recent evidence suggests that this is not necessarily the case. This review examines the relationship between the symptom of bloating and the physical sign of abdominal distension, as well as examining the epidemiology, pathophysiology and treatment options available for this debilitating aspect of the functional gastrointestinal disorders. Pathophysiological mechanisms explored include psychological factors, intestinal gas accumulation, fluid retention, food intolerance and malabsorption of sugars, weakness of abdominal musculature, and altered sensorimotor function. Treatment options are currently rather limited but include dietary changes, pharmacological approaches, probiotics and hypnotherapy.

Three-dimensional biomechanical properties of the human rectum evaluated with magnetic resonance imaging.
Frokjaer JB, Liao D, Bergmann A, McMahon BP, Steffensen E, Drewes AM, Gregersen H
Neurogastroenterol Motil 2005 Aug;17(4):531-540.

Abstract A method to evaluate the three-dimensional (3-D) geometry of the human gastrointestinal wall may be valuable for understanding tissue biomechanics, mechano-sensation and function. In this paper we present a magnetic resonance imaging (MRI) based method to determine rectal geometry and validation of data obtained in three volunteers. A specially designed rectal bag was filled in a stepwise manner while MRI and bag pressure were recorded. 3-D models of curvatures, radii of curvature, tension and stress were generated and the circumferential and longitudinal strains were calculated. The computed bag volumes corresponded to the infused volumes. A pronounced bag elongation and decrease in wall thickness was observed during the bag filling. The spatial distributions of the biomechanical parameters were distinctly different between individuals and non-homogeneous throughout the rectal wall due to its complex geometry. The average tension and stress increased as a function of infused volume and circumferential strain. The present study provides a method for characterizing the complex in vivo 3-D geometry of the human rectum. The non-homogenous spatial curvature distribution suggests that simple estimates of tension based on pressure and volume do not reflect the true 3-D biomechanical properties of the rectum.

Radiological appearances in the pelvis following rectal cancer surgery.
Tan PL, Chan CL, Moore NR
Clin Radiol 2005 Aug;60(8):846-55.
Radiology has a significant role in the evaluation of surgery for rectal cancer. With recent developments in surgical techniques, the number of neorectal reservoir configurations has increased. It is important to recognize the normal and abnormal appearances, both early and late, following pelvic surgery. The aim of this pictorial review is to demonstrate the imaging techniques that are used in both the investigation and the follow-up of patients who have undergone uncomplicated or complicated rectal resection.

4 – PROLAPSES 2005 07
Pelvic organ prolapse and urinary incontinence in nulliparous women at the United States Military Academy.
Larsen WI, Yavorek TA
Int Urogynecol J Pelvic Floor Dysfunct 2005 Aug 3;.
The objective of this study was to evaluate both baseline pelvic support and incontinence in relation to physical activity in nulliparous college women. Participants were examined using the pelvic organ prolapse and quantification system (POP-Q) and completed a questionnaire. Women with stage 0 prolapse and any other stage were compared. Potential risk factors and levels of physcial activity were analyzed using the chi-square test. We evaluated 144 women. Fifty percent had stage 0 support and 50% had stage I or II. Nineteen percent of participants reported incontinence. No risk factors for prolapse were identified, however running was associated with incontinence. Forty-six percent of physically active nulliparous college students had stage I pelvic support without identifiable risk factors. Stage I and II prolapse represent normal support.

Pelvic Organ Prolapse in Defecatory Disorders.
Klingele CJ, Bharucha AE, Fletcher JG, Gebhart JB, Riederer SG, Zinsmeister AR
Obstet Gynecol 2005 Aug;106(2):315-320.
Objective: To compare the prevalence of pelvic organ prolapse in subjects with defecatory disorders with that in control subjects. Methods: In 55 subjects with fecal incontinence, 42 subjects with obstructed defecation, and 45 healthy subjects without defecatory symptoms, a urogynecologist assessed pelvic organ prolapse by the pelvic organ prolapse quantification system, and a gastroenterologist evaluated perineal descent during simulated evacuation. A multiple logistic regression model evaluated whether obstetric-gynecological variables, including pelvic organ prolapse, could discriminate among controls, subjects with fecal incontinence, and subjects with obstructed defecation. Results: Fifty-five percent of controls, 42% of those with obstructed defecation, and 29% of those with fecal incontinence had stage II or greater prolapse by clinical examination. Eleven percent of controls, 7% of those with obstructed defecation, and 47% of subjects with fecal incontinence had a forceps delivery. Eighteen percent of controls, 31% of those with obstructed defecation, and 64% of those with fecal incontinence had a hysterectomy. Even after controlling for a higher prevalence of obstetric risk factors and hysterectomy, fecal incontinence was associated with a lower risk of stage II or greater pelvic organ prolapse (odds ratio for fecal incontinence in >/= stage II pelvic organ prolapse relative to stage 0 pelvic organ prolapse = 0.1, 95% confidence interval 0.01-0.53). In contrast, pelvic organ prolapse severity was not associated with control versus obstructed defecation status. Seven percent of controls, 18% of subjects with obstructed defecation, and 7% of those with fecal incontinence had increased perineal descent during simulated evacuation. Excessive perineal descent was associated ($P < .01$) with pelvic organ prolapse. Conclusion: Despite a higher prevalence of risk factors for pelvic floor injury, pelvic organ prolapse severity was lower in those with fecal incontinence than in subjects without bowel symptoms. However, a subset of subjects with defecatory disorders, predominantly obstructed defecation, have excessive perineal descent, which is associated with pelvic organ prolapse. Level of

Evidence: II-3.

A comparison of preoperative and intraoperative evaluation of patients undergoing pelvic reconstructive surgery for pelvic organ prolapse using the pelvic organ prolapse quantification system.
Vierhout ME, Stoutjesdijk J, Spruijt J
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 29;.
Objective:To compare the pre- and intraoperative situation using the POP-Q system during optimally standardized conditions of both examinations. Study design: In a prospective observational study, 108 women were compared. The POP-Q in the outpatient department (preoperative) was compared with the situation just prior to surgery after full anesthesia was reached (intraoperative). During the intraoperative measurement, traction with 0.5 kg force was applied on all relevant places. Results: The pre- and intraoperative measurements were all significant correlated with the R-values between 0.43 and 0.85. All six points, which are measured during the POP-Q, were more prolapsed in the intra- as compared with the preoperative situation. The points Bp, C, and D were significantly more prolapsed, but for the points Aa, Ba, and Ap this was not significant. Fifteen patients were upstaged by the intraoperative measurements and five patients were downstaged in the overall POP-Q grading system. Conclusions: Intraoperative evaluation of the prolapse can reveal significant changes as compared with the preoperative situation. In general, the prolapse is more pronounced especially in the middle and posterior compartment.

Prenatal diagnosis of fetal genital prolapse.
Cheng PJ, Shaw SW, Cheuh HY, Soong YK
Ultrasound Obstet Gynecol 2005 Aug;26(2):204-206.

Morphologic study on levator ani muscle in patients with pelvic organ prolapse and stress urinary incontinence.
Zhu L, Lang JH, Chen J, Chen J
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 9;.
The objective of this study was to determine the morphologic changes of the levator ani muscle of patients with pelvic organ prolapse and stress urinary incontinence. Histological and histochemical analyses of the biopsy specimens of the levator ani muscle obtained from patients with stress urinary incontinence (SUI), pelvic organ prolapse (POP), and a control group were performed. The striated muscle-positive biopsy rate was 26.7% in the SUI group, 15.8% in the POP group, whereas it was 100% in the control group. The diameters of types I and II fibers decreased significantly with age and menopausal time in the control group. Splitting or fragmentation of fibers with red granules, which are called ragged-red fibers, were found in the SUI group. The diameters of levator ani muscle fibers in the control group were significantly larger than those in the SUI group ($p=0.034<0.05$). The degenerative change in histology and decrease in relative number of levator ani muscle might be associated with women suffering from SUI.

An ambispective observational study in the safety and efficacy of posterior colporrhaphy with composite Vicryl-Prolene mesh.
Lim YN, Rane A, Muller R
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):126-31; discussion 131. Epub 2004 Sep 25.
There is increasing evidence to show that the use of surgical meshes reduces recurrence rates of hernia repair and anterior vaginal wall prolapse. The aim of this study was to determine the safety and efficacy of posterior colporrhaphy with mesh in patients with posterior vaginal prolapse. An ambispective observational study involving 90 patients was conducted with retrospective chart review and prospective subjective and objective assessments at the end of a 1-year study period. Apart from 2 of 90 (2.2%) minor hematoma incidents, there was no other major perioperative morbidity. Prevalence of common prolapse complaints of vaginal lump sensation, constipation, defecation difficulty and dyspareunia all improved significantly postoperatively ($p<0.001$). Surgical correction was achieved in 27 of 31 (83.9%) at 6 months and beyond. There was no mesh infection but minor vaginal mesh protrusion was found in 7 of 90 (7.8%) patients at 6-12 weeks and 4 of 31 (12.9%) patients at 6 months and beyond. All these were treated easily with trimming without the need of mesh removal. We conclude that posterior colporrhaphy with mesh is effective in treating posterior vaginal prolapse in short term.

Vaginal pessaries in managing women with pelvic organ prolapse and urinary incontinence: patient characteristics and factors contributing to success.
Hanson LA, Schulz JA, Flood CG, Cooley B, Tam F
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 26;.

Objective: An aging population has resulted in higher prevalence of urinary incontinence (UI) and pelvic organ prolapse (POP). This study examines a nurse-run clinic and analyzes the factors contributing to successful pessary use. Study design: A retrospective chart review of 1,216 patients was completed. History, pelvic examination and pessary fitting was done. Data was analyzed utilizing a categorical model of maximum-likelihood estimation to investigate relationships. Results: Median patient age was 63 years. Median number of pessaries tried was two. Eighty-five percent of post-menopausal women were on hormone replacement therapy (HRT) prior to fitting. Highest success rate of 78% was in the group on both systemic and local HRT. Success rates ranged from 58% for urge incontinence to 83% for uterine prolapse. Prior vaginal surgery was a factor impacting success. In our series highest success rates for fitting were obtained with ring pessaries, ring with support, and gellhorns. Conclusions: This model is a viable, option for the conservative management of UI and POP. Local HRT plays an important role in successful pessary fitting. Complications are rare.

Assessment of posterior vaginal wall prolapse: comparison of physical findings to cystodefecoperitoneography.
Altman D, Lopez A, Kierkegaard J, Zetterstrom J, Falconer C, Pollack J, Mellgren A
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):96-103; discussion 103. Epub 2004 Sep 14.
The aim of the present study was to compare clinical and radiological findings when assessing posterior vaginal wall prolapse. Defecography can be used to complement the clinical evaluation in patients with posterior vaginal wall prolapse. Further development of the defecography technique, using contrast medium in the urinary bladder and intraperitoneally, have resulted in cystodefecoperitoneography (CDP). Thirty-eight women underwent clinical examination using the pelvic organ prolapse quantification system (POP-Q) followed by CDP. All patients answered a standardized bowel function questionnaire. Statistical analysis measuring correlation between POP-Q and CDP using Pearson's correlation coefficient (r) and Spearman's rank order correlation coefficient (rs) demonstrated a poor to moderate correlation, r=0.49 and rs=0.55. Although there was a strong association between large rectoceles (>3 cm) at CDP and symptoms of rectal emptying difficulties ($p<0.001$), severity and prevalence of bowel dysfunction showed poor coherence with clinical prolapse staging and findings at radiological imaging. Vaginal topography and POP-Q staging predict neither radiological size nor visceral involvement in posterior vaginal wall prolapse. Radiological evaluation may therefore be a useful complement in selected patients.

Uterine Prolapse in Pregnancy.
Guariglia L, Carducci B, Botta A, Ferrazzani S, Caruso A
Gynecol Obstet Invest 2005 Jul 13;60(4):192-194.
We present a case of a patient developing uterine prolapse during pregnancy. The cervix reached the introitus at 10 weeks gestation and subsequentely protruted progressively as the pregnancy advanced. The patient was conservatively treated with bed rest and the main maternal and fetal risks are avoided. At 4 months postpartum follow-up there was no evidence of uterine prolapse.

The treatment of rectal prolapse in children with phenol in almond oil injection.
Angerpointner TA
J Pediatr Surg 2005 Jul;40(7):1217.

A solitary rectal ulcer mimicking rectal cancer.
Delgado J, Delgado B, Sztarkier I, Sperber AD, Walfisch S
Gastrointest Endosc 2005 Aug;62(2):309.

5 – RETENTIONS 2005 07

Paraurethral leiomyoma in a female causing urinary obstruction.
Bruschini H, Truzzi JC, Simonetti R, Mesquita R, Delcelo R, Szenfeld J, Srougi M
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jun 18;.
We report a case of paraurethral leiomyoma in a female patient, in which the first symptoms were dysuria and sensation of incomplete voiding. The physical examination revealed a mass in the anterior vaginal wall. The diagnosis was made through ultrasonography and pelvic MRI and confirmed by transvaginal ultrasound-guided needle biopsy. The surgical excision was accomplished without opening the urinary tract. A review of the relevant published studies and a suggestion for the appropriate management of these cases are included.

ASGE guideline: Guideline on the use of endoscopy in the management of constipation.

Qureshi W, Adler DG, Davila RE, Egan J, Hirota WK, Jacobson BC, Leighton JA, Rajan E, Zuckerman MJ, Fanelli R, Wheeler-Harbaugh J, Baron TH, Faigel DO
Gastrointest Endosc 2005 Aug;62(2):199-201.

How should we evaluate and treat constipation in infants and children?
Holten KB
J Fam Pract 2005 Aug;54(8):706-7.
What are the indications for laboratory studies and imaging? What dietary adjustments are most effective? What medications are helpful? When can enemas be used? How effective is behavior modification? These questions are answered in the recommendations derived from a guideline developed and funded by the North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition. The target populations are infants and children with constipation who have no preexisting medical diagnosis. The evidence categories for this guideline are diagnosis, evaluation, management, and treatment. Outcomes considered are 1) sensitivity and specificity of diagnostic tests; 2) rate of symptomatic relief; 3) prevention and control of symptoms; 4) medication and treatment side effects; 5) quality of life; and 6) bowel movement frequency. Recommendations were grouped by patient age: infants (age less than 1 year), children (age 1 year and older), and in general for all ages. Functional constipation was defined as fecal retention, unrelated to a medical or anatomic abnormality. Potential benefits and harms of implementing the guidelines were considered in the development. The rating scheme is updated to comply with the SORT taxonomy.

Management of chronic constipation: Recommendations from a consensus panel.
Bleser S, Brunton S, Carmichael B, Olden K, Rasch R, Steege J
J Fam Pract 2005 Aug;54(8):691-8.
Chronic constipation results in more than 2.5 million visits to physicians and almost 100,000 hospitalizations in the United States annually. While patients are most concerned about symptoms such as straining, unproductive urges, a sense of incomplete evacuation, excessive time spent on the toilet, abdominal discomfort, and bloating, physicians focus on the frequency of bowel movements. Patients frequently self-medicate for chronic constipation and spend an estimated $800 million on laxatives annually. More important, chronic constipation has a significant adverse impact on patients' health-related quality of life. In this publication, a panel of experts examine the characterization of chronic constipation, provide guidelines for diagnosis in the primary care setting, and assess the benefits and risks of management options.

Development and validation of the Patient Assessment of Constipation Quality of Life questionnaire.
Marquis P, De La Loge C, Dubois D, McDermott A, Chassany O
Scand J Gastroenterol 2005 May;40(5):540-51.
OBJECTIVE: Chronic constipation is characterized by difficult, infrequent, or seemingly incomplete bowel movements. The Patient Assessment of Constipation Quality of Life (PAC-QOL) questionnaire was developed to address the need for a standardized, patient-reported outcomes measure to evaluate constipation over time. MATERIAL AND METHODS: Items for the PAC-QOL were generated from the literature, clinical experts, and patients. Following principal components and multi-trait analyses, 28 items were retained forming four subscales (worries and concerns, physical discomfort, psychosocial discomfort, and satisfaction) and an overall scale. Validation studies were conducted in the United States, Europe, Canada, and Australia, to evaluate the internal consistency reliability (Cronbach's alpha), reproducibility (Intraclass Correlation Coefficients (ICCs)), validity (analysis of variance models), and responsiveness (effect size) of the PAC-QOL scales. RESULTS: The PAC-QOL scales were internally consistent (Cronbach's alpha >0.80) and reproducible (ICCs >0.70, except for the satisfaction subscale ICC=0.66). PAC-QOL scale scores were significantly associated with abdominal pain ($p<0.001$) and constipation severity ($p<0.05$). Effect sizes in patients reporting improvements in constipation over a 6-week period were moderate to large, with subscale effect sizes ranging from 0.76 to 3.41 and the overall scale effect size=1.77. Similar findings were observed in validation studies conducted in Europe, Canada, and Australia. CONCLUSIONS: The PAC-QOL is a brief but comprehensive assessment of the burden of constipation on patients' everyday functioning and well-being. Multinational studies demonstrate that the PAC-QOL is internally consistent, reproducible, valid, and responsive to improvements over time.

Effects of regular physical activity on defecation pattern in middle-aged patients complaining of chronic constipation.
De Schryver AM, Keulemans YC, Peters HP, Akkermans LM, Smout AJ, De Vries WR, van Berge-Henegouwen GP
Scand J Gastroenterol 2005 Apr;40(4):422-9.
OBJECTIVE: It is not well known whether physical activity (PA) is useful in the management of patients complaining of constipation. The aim of this study was to test the influence of regular PA on colonic transit

time and defecation in middle-aged inactive patients suffering from chronic idiopathic constipation. MATERIAL AND METHODS: Forty-three subjects (> 45 years) were randomly divided into group A (n = 18, 16 F, 2 M) and group B (n = 25, 20 F, 5 M). Group A subjects maintained their normal lifestyle during 12 weeks, followed by a 12-week PA programme. Group B performed a 12-week PA programme after randomization. PA comprised 30 min of brisk walking and a daily 11-min home-based programme. Both groups received dietary advice. Colonic transit time was measured using a radiographic multiple marker single film technique. RESULTS: Despite dietary advice, mean fibre and fluid intake did not change. In group B a significant reduction in 3 out of 4 of the Rome I criteria for constipation was observed, i.e. percentage of incomplete defecations, percentage of defecations requiring straining and percentage of hard stools ($p < 0.05$). As a consequence, the number of fulfilled Rome criteria for constipation decreased (2.7 to 1.7; $p < 0.05$). Furthermore, the rectosigmoid and total colonic transit time decreased (17.5 to 9.6 h and 79.2 to 58.4 h, respectively; $p < 0.05$). After PA the number of fulfilled Rome criteria also decreased in group A (2.6 to 1.7; $p < 0.05$). CONCLUSIONS: In middle-aged inactive subjects with symptoms of chronic constipation, it is advisable to promote regular physical activity since it improves both the defecation pattern and rectosigmoid or total colonic transit time.

Diagnosis and therapy of ultrashort Hischsprung's disease.
Angerpointner TA
J Pediatr Surg 2005 Jul;40(7):1217.
Although ultrashort Hirschsprung's disease (UHD) was enzyme-histochemically characterised about 35 years ago, its existence is still often ignored. The aim of this study was to summarize diagnostic criteria, incidence, gender ratio, morphology and therapy over 15 years. Reliable diagnosis of suspected UHD requires contrast enema to exclude HD. In UHD, no reflux of contrast medium is observed during pressing or crying. Final proof of UHD is enzyme-histochemical biopsy examination of distal rectal mucosa. The biopsies must be taken from the dentate line and 1, 2, 4 and 6 cm above the dentate line and then subjected to an enzyme-histochemical acetylcholinesterase (AChE) reaction of native sections of rectal mucosa. UHD develops with first symptoms of therapy resistant chronic constipation during the second half of the first year of life. In contrast, constipation occurs in the first weeks of life or after weaning in HD. Also in contrast to HD, no nerve fibers with increased AChE activity are observed in the lamina propria mucosae in UHD. Nets of nerve fibers with increased AChE activity can be found only in the muscularis mucosae and the musculus corrugator cutis ani (MCCA). Therapy of choice has proven to be partial myectomy of the distal internal sphincter if dilatation of the internal sphincter is ineffective. UHD is either limited to the anal ring, or extends only 3-4 cm into the distal rectum. UHD had an incidence of 13.4% of all aganglionoses in the series presented. Gender ratio boys to girls was 2:1.

Paediatric constipation for adult surgeons-article 1: Targeting the cause.
Angerpointner TA
J Pediatr Surg 2005 Jul;40(7):1217.
The authors review the potential implications for adult general and colorectal surgeons of recent advances in the diagnosis and management of constipation in childhood. The authors cite data highlighting the high incidence and prevalence of constipation in both children and adults, and how constipation in childhood commonly persists or recurs in adult life. The authors argue that constipation should be regarded as a "collection of symptoms" rather than a diagnosis. Through the use of manometry and colonic transit studies, they suggest that patients may be grouped into those that are constipated as a result of slow colonic transit and those due to ano-rectal disorders, collectively termed functional faecal retention (FFR). FFR may occur as a result of anatomical problems, such as an anal fissure, or non-anatomical problems that include endocrine, metabolic, and neurological disorders. Once an anatomical problem has been excluded, The authors suggest that patients presenting with constipation should be investigated to determine the site of the problem, using both radio-opaque marker studies to determine the transit time and colonic manometry to assess pressure abnormalities. In the authors' experience, 50% of children with chronic constipation will have delayed transit times, indicating slow transit constipation (STC), with failure of markers to progress to the rectosigmoid within 48 hours. Paediatric STC seems to differ from adults with the same condition, in that adult STC is far more common in women, the stools are firm.

Thickening of the internal anal sphincter in idiopathic constipation in children.
Schmittenbecher P
J Pediatr Surg 2005 Jul;40(7):1217.
Thickening of the internal anal sphincter (IAS) is observed in chronic idiopathic constipation. This may be a feature of the obstructed megarectum in a similar way to the hypertrophy of bladder neck and detrusor muscle seen in dyssynergic bladders. It was the aim of the study to investigate the significance of thickening of the IAS in children with chronic constipation and to look for any association with anorectal manometry

findings. The prospective study included 144 consecutive children treated within two years. Constipation was defined as stool frequency of less than three times a week, passage of large stool amounts at least once every month with palpable abdominal or rectal mass, and two or more soiling/encopresis episodes per week. All children were investigated by a intestinal transit study, anorectal manometry and endosonography. IAS thickness was measured at the mid-anal canal at 3, 6 and 9 o'clock positions, and the mean value was used for analysis. Symptom severity was measured using a parents questionnaire symptom score, composed of scores for delay in defecation, pain with passing stool, soiling, intensity of laxative treatment, child's general health, behaviour related to the bowel problem, improvement of symptoms and assessment of megarectum on abdominal palpation. Eighty-four boys and 60 girls with a median age of 8.1 years were included. The transit study showed delayed transit mainly in the rectosigmoid region. Soiling was found in 94%, delay in defecation in 91% and a palpable megarectum in 80%. Main duration of symptoms and treatment were 4 years and 3.3 years. The mean severity score was 33 (65 as maximum). Mean IAS thickness was 0.9 mm (0.3-2.8 mm), resting anal sphincter pressure was 54 mmHg (19-107 mmHg), median amplitude of rectal contraction 3 mmHg (1-25 mmHg), and the size of rectum was calculated with 260 ml (60-823 ml). IAS thickness was correlated significantly with the severity score, the size of the megarectum, the rectal contraction and the age of the patient. It is speculative whether these findings are the primary cause or the secondary effect of constipation and faecal impaction. However, if the thickened sphincter was a primary cause of constipation, it should have been seen in young children to the same degree as in older patients. Children with a longer history of constipation had a larger megarectum and thicker IAS suggesting sphincter thickness as a secondary phenomenon. The activity in the rectum in response to the retained faecal mass is the driving stimulus for the exaggerated response of anal sphincter contraction with hypertrophic changes.

Development and validation of the Patient Assessment of Constipation Quality of Life questionnaire.
Marquis P, De La Loge C, Dubois D, McDermott A, Chassany O
Scand J Gastroenterol 2005 May;40(5):540-51.
OBJECTIVE: Chronic constipation is characterized by difficult, infrequent, or seemingly incomplete bowel movements. The Patient Assessment of Constipation Quality of Life (PAC-QOL) questionnaire was developed to address the need for a standardized, patient-reported outcomes measure to evaluate constipation over time. MATERIAL AND METHODS: Items for the PAC-QOL were generated from the literature, clinical experts, and patients. Following principal components and multi-trait analyses, 28 items were retained forming four subscales (worries and concerns, physical discomfort, psychosocial discomfort, and satisfaction) and an overall scale. Validation studies were conducted in the United States, Europe, Canada, and Australia, to evaluate the internal consistency reliability (Cronbach's alpha), reproducibility (Intraclass Correlation Coefficients (ICCs)), validity (analysis of variance models), and responsiveness (effect size) of the PAC-QOL scales. RESULTS: The PAC-QOL scales were internally consistent (Cronbach's alpha >0.80) and reproducible (ICCs >0.70, except for the satisfaction subscale ICC=0.66). PAC-QOL scale scores were significantly associated with abdominal pain ($p<0.001$) and constipation severity ($p<0.05$). Effect sizes in patients reporting improvements in constipation over a 6-week period were moderate to large, with subscale effect sizes ranging from 0.76 to 3.41 and the overall scale effect size=1.77. Similar findings were observed in validation studies conducted in Europe, Canada, and Australia. CONCLUSIONS: The PAC-QOL is a brief but comprehensive assessment of the burden of constipation on patients' everyday functioning and well-being. Multinational studies demonstrate that the PAC-QOL is internally consistent, reproducible, valid, and responsive to improvements over time.

Effects of regular physical activity on defecation pattern in middle-aged patients complaining of chronic constipation.
De Schryver AM, Keulemans YC, Peters HP, Akkermans LM, Smout AJ, De Vries WR, van Berge-Henegouwen GP
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OBJECTIVE: It is not well known whether physical activity (PA) is useful in the management of patients complaining of constipation. The aim of this study was to test the influence of regular PA on colonic transit time and defecation in middle-aged inactive patients suffering from chronic idiopathic constipation. MATERIAL AND METHODS: Forty-three subjects (> 45 years) were randomly divided into group A (n = 18, 16 F, 2 M) and group B (n = 25, 20 F, 5 M). Group A subjects maintained their normal lifestyle during 12 weeks, followed by a 12-week PA programme. Group B performed a 12-week PA programme after randomization. PA comprised 30 min of brisk walking and a daily 11-min home-based programme. Both groups received dietary advice. Colonic transit time was measured using a radiographic multiple marker single film technique. RESULTS: Despite dietary advice, mean fibre and fluid intake did not change. In group B a significant reduction in 3 out of 4 of the Rome I criteria for constipation was observed, i.e. percentage of incomplete defecations, percentage of defecations requiring straining and percentage of hard stools ($p < 0.05$). As a consequence, the number of fulfilled Rome criteria for constipation decreased (2.7 to 1.7; $p <$

0.05). Furthermore, the rectosigmoid and total colonic transit time decreased (17.5 to 9.6 h and 79.2 to 58.4 h, respectively; $p < 0.05$). After PA the number of fulfilled Rome criteria also decreased in group A (2.6 to 1.7; $p < 0.05$). CONCLUSIONS: In middle-aged inactive subjects with symptoms of chronic constipation, it is advisable to promote regular physical activity since it improves both the defecation pattern and rectosigmoid or total colonic transit time.

6 – INCONTINENCES 2005 07

Relationship between ankle position and pelvic floor muscle activity in female stress urinary incontinence.

Chen CH, Huang MH, Chen TW, Weng MC, Lee CL, Wang GJ
Urology 2005 Jul 22;.

OBJECTIVES: To assess the influence of ankle position on pelvic floor muscle (PFM) activity in women with stress urinary incontinence. METHODS: A total of 39 women, ranging in age from 38 to 72 years and clinically diagnosed with stress urinary incontinence, participated in testing of PFM activity changes during various pelvic tilt angles created by horizontal, dorsiflexed, and plantar flexed ankle positions. PFM activity was measured by an intravaginal probe with surface electromyographic electrodes. An adjustable angle platform was used to set the ankle in each of the positions to create the various pelvic tilt postures. RESULTS: Significant differences were found in resting PFM activity between horizontal standing with the ankle in the neutral position and standing with the ankle in plantar flexion ($P = 0.01$). Patients with ankle dorsiflexion also had greater resting PFM activity than with ankle plantar flexion ($P < 0.01$). Subjects showed significant changes in mean maximal PFM activity when standing with the ankle dorsiflexed and horizontal or in plantar flexion. CONCLUSIONS: A standing posture that includes various ankle positions effectively facilitates PFM activity through enhanced pelvic tilt. We recommend these ankle positions as an adjunctive option combined with PFM training for stress urinary incontinence.

The current role of the artificial urinary sphincter for the treatment of urinary incontinence.

Hussain M, Greenwell TJ, Venn SN, Mundy AR
J Urol 2005 Aug;174(2):418-24.

PURPOSE: The introduction of the artificial urinary sphincter (AUS) in 1972 was heralded as a revolution for the treatment of genuine stress incontinence. Initial enthusiasm was tempered by disappointment as complications occurred. The device has now been in routine clinical use for more than 30 years, and the indications and surgical principles involved in its use along with short-term and long-term outcomes are more clearly defined. Hence, we reviewed the literature to clarify the role of the AUS and offer a possible solution to its problems in the guise of a new sphincter. MATERIALS AND METHODS: A MEDLINE search was performed and all articles relating to the role of the AUS for the treatment of urinary incontinence were reviewed. RESULTS: The AMS 800 (American Medical Systems, Minnetonka, Minnesota) provides urinary continence in 73% of cases (range 61% to 96%) and it has a complication rate of 12% (range 3% to 33%) for mechanical failure, 4.5% to 67% for early infection/erosion, 15% for late erosion and 7% for delayed recurrent incontinence. The literature supports the role of the AUS as an important and reliable treatment modality for stress urinary incontinence and intrinsic sphincter deficiency. However, it is not suitable in all patients and its use for the management of hypermobility is controversial. Hence, careful patient selection according to indication is required with full preoperative counseling. CONCLUSIONS: Despite its reliability for achieving urinary continence the AMS 800 is not perfect. Newer devices, such as that being developed at our institution, may offer improved outcomes and decreased complication rates.

Epidemiology of incontinence and prolapse.

Albertsen PC
J Urol 2005 Aug;174(2):613; discussion 613.

Is Urinary Incontinence a Barrier to Exercise in Women?

Nygaard I, Girts T, Fultz NH, Kinchen K, Pohl G, Sternfeld B
Obstet Gynecol 2005 Aug;106(2):307-314.

Objective: To describe the prevalence of urinary incontinence during exercise in women, estimate whether exercise intensity is related to leakage severity, and report women's assessments of incontinence as a barrier to exercise. Methods: Questionnaires were mailed to 5,130 women aged 18-60 years drawn from National Family Opinion research panels. Physical activity levels were assessed by the International Physical Activity Questionnaire. Urinary incontinence, defined as involuntary leakage in the last 30 days, was assessed with the Sandvik Severity Index and a global measure of bother. Prevalence estimates were adjusted via post-stratification weighting. Results: A total of 3,364 eligible women responded (68%), of whom 34.6% were insufficiently active (95% confidence interval [CI] 32.7-36.5%), 29.7% were sufficiently active

(95% CI 27.9-31.5%), and 35.7% were highly active (95% CI 33.8-37.6%). Urinary incontinence prevalence was 34.3% (95% CI 32.5-36.1%). One in seven women experienced urinary leakage during physical activity; this was more common among highly active (15.9%) than less active women (11.8%) (P = .01). After adjusting for age, comorbidities, education, and race, women with very severe incontinence were 2.64 times (95% CI 1.25-5.55) more likely to be insufficiently active than continent women. Incontinence was a moderate or substantial barrier to exercise for 9.8% (95% CI 8.8-10.9%) of women. Of incontinent women, the proportion for whom incontinence was a moderate or substantial barrier to exercise increased with each severity category: 9.2%, slight; 37.8%, moderate; 64.6%, severe; and 85.3%, very severe (P < .01). Conclusion: Urinary incontinence is perceived as a barrier to exercise, particularly by women with more severe leakage. Level of Evidence: II-3.

Response of external urethral sphincter to high frequency biphasic electrical stimulation of pudendal nerve.
Tai C, Roppolo JR, de Groat WC
J Urol 2005 Aug;174(2):782-6.
PURPOSE: We optimized the axonal blocking effect of high frequency, biphasic stimulation on neurally evoked contractions of the external urethral sphincter (EUS) and further investigated the repeatability of the blocking effect during relatively long periods to evaluate any acute nerve damage. MATERIALS AND METHODS: Two stainless steel electrodes were positioned 5 to 10 mm apart on the decentralized pudendal nerve in alpha-chloralose anesthetized cats. The distal electrode was first tested at different frequencies (1 to 10 kHz) to search for the effective blocking frequency. At a fixed frequency (4, 6, 8 or 10 kHz) different stimulation intensities were then tested to evaluate their blocking effect. Sine waveform or biphasic pulses of a fixed pulse width were also tested. Finally, the proximal electrode was stimulated at 40 Hz for more than 40 minutes and during the same period the distal electrode (6 to 10 kHz) was repeatedly activated for 1-minute intervals in an attempt to block the EUS contraction induced by the proximal electrode. RESULTS: High frequency, biphasic stimulation (6 to 10 kHz) with a pulse width dependent on frequency is optimal to block EUS contractions compared with sine waveform or biphasic pulses of a fixed pulse width. Acute nerve damage caused by blocking stimulation was not observed on neurally evoked urethral pressure. CONCLUSIONS: Reversible block of EUS contractions by high frequency, biphasic stimulation of pudendal nerves is a potential method for suppressing detrusor-sphincter dyssynergia and improving voiding in spinal cord injured patients.

Tension-free vaginal tape: a prospective subjective and objective outcome analysis.
Richter HE, Norman AM, Burgio KL, Goode PS, Wright KC, Benton J, Varner RE
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):109-13. Epub 2004 Oct 23.
The purpose of this prospective study was to describe the effects of the tension-free vaginal tape (TVT) procedure on subjective and objective outcomes. Eighty-seven women (aged 31-95 years) underwent a TVT procedure and were followed for up to 24 months using the Incontinence Impact Questionnaire (IIQ-7), Urogenital Distress Inventory (UDI-6), and a Patient Satisfaction Questionnaire. IIQ-7 scores improved from a mean 51.1 before surgery to 12.7 at 1 month ($p<0.001$) indicating reduced impact of incontinence on quality of life. UDI-6 scores declined from a mean 61.8 to 21.9 ($p<0.001$) indicating improvement in urinary symptoms. At 1 month, 91.2% of patients were satisfied. Improvements on all measures were maintained throughout follow-up. Urodynamic evaluation of 57 patients (mean: 15.0 months) showed that 91.2% had a negative stress test. Results indicate significant immediate and sustained improvement in incontinence impact and urinary symptoms, and a high rate of patient satisfaction and objective cure.

How urgent is urgency? A review of current methods of assessment.
Freeman RM
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):93-5. Epub 2004 Nov 18.

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

removal was assessed. The four patients maintained urinary continence after urethrolysis and removal of the mesh. Fibrosis and severe inflammatory reactions were found in the connective tissue adjacent to the mesh as well as the Prolene mesh. Technically, it would be easier to remove the graft of patch sling if rejection or erosion occurs.

Assessing outcome after a modified vaginal wall sling for stress incontinence with intrinsic sphincter deficiency.
Costantini E, Mearini L, Mearini E, Pajoncini C, Guercini F, Bini V, Porena M
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):138-46; discussion 146. Epub 2004 Oct 22.
Forty women with stress incontinence, intrinsic sphincter deficiency (ISD), associated or not with urethral hypermobility, a Valsalva leak point pressure (VLLP)<60 cmH(2)0 and a maximum urethral closure pressure<30 cmH(2)0 underwent in situ vaginal wall sling. The main modification to the technique was the use of two small Marlex meshes placed at the lateral edges of the sling. Outcome was assessed by pad use, surgical results and patients' satisfaction. Data of 39/40 patients were analyzed after a minimum follow-up of 1 year. After surgery 30/39 patients were completely dry (no pads), stress incontinence disappeared in 22/39, and 30/39 patients were satisfied with outcome. Reasons for dissatisfaction included recurrence of stress incontinence in three, infections in one and urge incontinence in five. Overall results are good given this category of patients. The vaginal wall sling can be recommended for patients with ISD because the results are promising, it corrects urethral hypermobility and, in our experience, it does not cause obstruction if correctly performed.

Incontinence-specific quality of life measures used in trials of treatments for female urinary incontinence: a systematic review.
Ross S, Soroka D, Karahalios A, Glazener CM, Hay-Smith EJ, Drutz HP
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 16;.
This systematic review examined the use of incontinence-specific quality of life (QOL) measures in clinical trials of female incontinence treatments, and systematically evaluated their quality using a standard checklist. Of 61 trials included in the review, 58 (95.1%) used an incontinence-specific QOL measure. The most commonly used were IIQ (19 papers), I-QoL (12 papers) and UDI (9 papers). Eleven papers (18.0%) used measures which were not referenced or were developed specifically for the study. The eight QOL measures identified had good clinical face validity and measurement properties. We advise researchers to evaluate carefully the needs of their specific study, and select the QOL measure that is most appropriate in terms of validity, utility and relevance, and discourage the development of new measures. Until better evidence is available on the validity and comparability of measures, we recommend that researchers consider using IIQ or I-QOL with or without UDI in trials of incontinence treatments.

Quality of life assessments in women operated on by tension-free vaginal tape (TVT).
Tomoe H, Kondo A, Takei M, Nakata M, Toma H
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):114-8; discussion 108. Epub 2004 Sep 21.
The aim of the study was to evaluate quality of life (QOL) prospectively in women who undergo tension-free vaginal tape (TVT) operation for stress urinary incontinence. Sixty-six women who completed QOL questionnaires and a 2-year follow-up examination were included. Improvement of health-related QOL was assessed by the Incontinence Impact Questionnaire-7 (IIQ-7), the Urogenital Distress Inventory-6 (UDI-6), and two questions regarding patient satisfaction and de novo urge incontinence. Prior to surgery, patients complained most of stress symptoms followed by physical activities and emotional health. Postoperatively IIQ-7 and UDI-6 as a whole and all seven domains improved significantly ($p<0.001$). Scores of IIQ-7, UDI-6, and seven domains did not differ between the adult and the elderly groups. Of the patients 88% were much satisfied or satisfied with surgical outcomes. Incidence of de novo urge incontinence was 12%. It is concluded that the TVT procedure significantly improved health-related quality of life.

Comparison between porcine dermal implant (Permacol) and silicone injection (Macroplastique) for urodynamic stress incontinence.
Bano F, Barrington JW, Dyer R
Int Urogynecol J Pelvic Floor Dysfunct 2005 Mar-Apr;16(2):147-50; discussion 150. Epub 2004 Sep 18.
The objective of this study was to compare the efficacy of porcine dermal implant injection (Permacol) and silicone injection (Macroplastique) in the treatment of female urodynamic stress incontinence (USI) in a prospective randomized trial. Fifty women with urodynamically proven stress incontinence were recruited and randomised to receive either Permacol or Macroplastique injection. Twenty-five patients were enrolled in each case. An International Continence Society (ICS) standard 1-h pad test was carried out prior to the injection and a subjective analysis of incontinence made using a Stamey scoring system. In addition, a Kings College Hospital Quality of Health Questionnaire (KCQ) was completed. The women were followed up at 6

weeks and 6 months and the same methods used to gauge the success or failure of the operation. Preoperatively there were no significant differences in pad losses, Stamey score or King's score between the two groups. The mean age of the women was 61 years (range 28-80 years). At 6 weeks there were significant reductions in the mean and median values in pad losses, Stamey score and King's score in both Permacol and Macroplastique patients but the effects were more pronounced in Permacol patients than Macroplastique patients. Of the Permacol patients, 64% were improved on quantified pad losses out of which 60% were dry whereas 54% of Macroplastique patients were improved on pad losses of which 41.6% were dry. Of the Permacol patients, 64% and 60% had reduction in Stamey and KCQ score, respectively, whereas Macroplastique patients had 46% reduction in one or more grades of Stamey scores and 42% reduction in KCQ scores. At 6 months the results in the Permacol patients appeared to be sustained but not for Macroplastique patients. This study has shown that Permacol injection when used as a urethral bulking agent appears to have a higher cure rate for urodynamic stress incontinence than Macroplastique and these results persist until the follow-up period of 6 months. The use of Permacol injection is an attractive alternative in the treatment of urodynamic stress incontinence.

Stoller afferent nerve stimulation in woman with therapy resistant over active bladder; a 1-year follow up.
Nuhoglu B, Fidan V, Ayyildiz A, Ersoy E, Germiyanoglu C
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 28;.
Aim: In this prospective observational study, we investigated the efficacy of Stoller afferent nerve stimulation (SANS) in subjects with overactive bladder who failed anticholinergic treatment.Methods: Thirty-five subjects with overactive bladder who failed therapy with oxybutynin participated in this study. Treatment (n=35) was given once a week for 30 minutes for overall 10 weeks. In treatment, SANS device (Urosurge((R))) was used. Subjects were assessed with 3-day voiding diary, SEAPI quality of life questionnaires and cystometry before therapy after completion of therapy and at one-year follow-up.Results: In 54% (n=19) of subjects complete recovery was obtained after treatment. Urgency and SEAPI were reduced significantly whereas urine volume increased significantly ($p<0.01$). Complete recovery was maintained in eight of the 19 subjects at one year.Conclusions: SANS treatment has a short-term positive effect in patients with resistant overactive bladder. However, it was also established that efficacy was maintained at 1 year in only 23% of subjects.

Changes in urethral resistance in the presence of detrusor activity.
Chaliha C, Digesu GA, Salvatore S, Khullar V
Int Urogynecol J Pelvic Floor Dysfunct 2005 Aug 3;.
This was a prospective study performed at two tertiary referral teaching hospitals. The aim of our study was to investigate changes in urethral resistance with the bladder full compared to empty in women with different urodynamic diagnoses. Consecutive women attending the urodynamic clinics were asked to undergo urethral retro-resistance pressure (URP) measurement with the bladder empty and then full. 106 women were recruited - 25 had normal urodynamic studies, 17 had detrusor overactivity, 57 had urodynamic stress incontinence and 7 had mixed incontinence. Women with urodynamic stress incontinence have lower URP values than women with normal urodynamic studies or those with detrusor overactivity with the bladder empty ($p = 0.01$). Women with normal urodynamic studies and urodynamic stress incontinence showed a statistically significant rise in URP with the bladder full ($p = 0.013$ and $p = 0.003$, respectively). In women with detrusor overactivity, the converse was seen - URP was significantly lower with the bladder full compared to empty ($p = 0.004$). Our study has shown that bladder filling alters URP measurement and bladder volume should be standardised for reporting URP.

TVT versus SPARC: comparison of outcomes for two midurethral tape procedures.
Gandhi S, Abramov Y, Kwon C, Beaumont JL, Botros S, Sand PK, Goldberg RP
Int Urogynecol J Pelvic Floor Dysfunct 2005 Aug 4;.
To compare the subjective and objective cure rates in women who underwent either the SPARC or the TVT midurethral sling for the treatment of stress urinary incontinence. This retrospective study included all 122 consecutive women undergoing a TVT or SPARC midurethral sling procedure for objective stress urinary incontinence between January 2000 and March 2003 at the Evanston Continence Center. Primary outcomes were subjective and objective stress incontinence cure rates. Subjects underwent multichannel urodynamics preoperatively and 14 weeks postoperatively, and stress testing at last follow-up. The two groups were compared using univariate and multivariate analyses. Seventy-three subjects underwent a TVT and 49 subjects had a SPARC procedure. There were no statistical differences in demographic factors between the two groups. Subjects undergoing SPARC were more likely to void by Valsalva effort. One hundred and seven women returned for objective postoperative evaluation after surgery. The TVT procedure was associated with higher subjective (86 vs. 60%, $P=0.001$) and objective (95 vs. 70%, $P<0.001$) stress

incontinence cure rates. There was no difference between the TVT and SPARC groups in the resolution of subjective and objective urge urinary incontinence. TVT was associated with a higher stress urinary incontinence cure rate than SPARC in this retrospective study. As new midurethral sling products are introduced, prospective randomized controlled trials should be conducted to evaluate their relative efficacy and safety.

Pathogenesis of urethral funneling in women with stress urinary incontinence assessed by introital ultrasound.
Tunn R, Goldammer K, Gauruder-Burmester A, Wildt B, Beyersdorff D
Ultrasound Obstet Gynecol 2005 Aug 5;.

Questionnaire survey on female urinary frequency and incontinence.
Tomoe H, Sekiguchi Y, Horiguchi M, Toma H
Int J Urol 2005 Jul;12(7):621-30.
Background : Urinary incontinence is a well-known bothersome symptom in women, which may cause physical and psychological problems. We conducted a questionnaire survey on female urinary incontinence to investigate the disease's impact on the quality of life (QoL), the reasons women don't seek medical attention and the information they wished to obtain. Patients and methods : From March to October 2002, a member of the Professional Women's Coalition for Sexuality and Health distributed a questionnaire about urinary frequency and urinary incontinence to women who were attending the lectures hosted by the group. Results : We analysed 262 questionnaires: 158 people belonged to the Stress Urinary Incontinence (SUI) Group, 36 to the Overactive Bladder (OAB) Group, 22 to the Urinary Frequency (UF) Group and 18 to the Normal Group. 'Going out' was most influenced in all three groups with symptoms in their daily life. Compared with the Normal or SUI Group, the QoL in those belonging to the OAB and UF Groups was more deteriorated. The medical institution check-up rate in the SUI Group was the lowest at 7.1%, bringing down the overall consultation rate to 13.5%. More than 70% of respondents who didn't have a check-up said that they did not think it was a problem serious enough to require consultation. Conclusions : Urinary incontinence and frequency impairs women's QoL. It is important to provide information on these diseases and to provide medical treatments that cater to the needs of individual patients.

Overactive bladder.
Thacker HL, Paraiso M
Cleve Clin J Med 2005 Jul;72(7):544; author reply 544-5.

Persistence with antimuscarinic therapy in patients with overactive bladder.
Haab F, Castro-Diaz D
Int J Clin Pract 2005 Aug;59(8):931-7.

Contemporary therapy for overactive bladder.
Chapple C
Int J Clin Pract 2005 Aug;59(8):872-3.

Leaking urine prior to pregnancy: a risk factor for postnatal incontinence.
Stainton MC, Strahle A, Fethney J
Aust N Z J Obstet Gynaecol 2005 Aug;45(4):295-9.
Abstract Background: The prevalence of 30% for postnatal urinary incontinence is a major women's health issue. The majority of studies to date are retrospective, and evidence about contributing factors is inconsistent. Aims: To identify women at risk for postnatal urinary incontinence following the first pregnancy and birth. Study population and methods: One hundred and twenty four women participated in a longitudinal study. Questionnaires and interviews were conducted at 14, 24 and 38 weeks' gestation and 24-72 h, 6-8 weeks and 6-18 months postnatal. These, along with chart audits for pregnancy, labour and delivery factors and demographics, formed the database for logistic regression. Results: The only variable to emerge as a key indicator for predicting those women most at risk for developing postnatal urine leakage was a history of urinary leaking prior to the first pregnancy. Women with this history were 4.14 times more at risk of leaking urine 1 year after giving birth than women without previous urine leakage (P = 0.02). There was a pattern of leaking urine across the childbearing experience that suggests some resolution by 12 months regardless of parity. Length of second stage labour and method of delivery were the only labour and delivery variables to show significant differences between leaking and not leaking urine at 12 months postnatal. Conclusion: Women who leak urine before their first pregnancy can be identified during early antenatal care as those at risk for postnatal urinary incontinence. Further research to test preventive measures is needed.

Concomitant tension-free vaginal tape for urinary incontinence during laparoscopic hysterectomy.
Lin YH, Liang CC, Lo TS, Soong YK, Chang SD, Chang YL
Aust N Z J Obstet Gynaecol 2005 Aug;45(4):304-7.

Anal Sphincter Defects in Patients with Fecal Incontinence: Endoanal versus External Phased-Array MR Imaging.
Terra MP, Beets-Tan RG, van Der Hulst VP, Dijkgraaf MG, Bossuyt PM, Dobben AC, Baeten CG, Stoker J
Radiology 2005 Jul 12;.
PURPOSE: To prospectively compare external phased-array magnetic resonance (MR) imaging with endoanal MR imaging in depicting external and internal anal sphincter defects in patients with fecal incontinence and to prospectively evaluate observer reproducibility in the detection of external and internal anal sphincter defects with both MR imaging techniques. MATERIALS AND METHODS: The medical ethics committees of both participating hospitals approved the study, and informed consent was obtained. Thirty patients (23 women, seven men; mean age, 58.7 years; range, 37-78 years) with fecal incontinence underwent MR imaging with both endoanal and external phased-array coils. MR images were evaluated by three radiologists with different levels of experience for external and internal anal sphincter defects. Measures of inter- and intraobserver agreement of both MR imaging techniques and of differences between both imaging techniques were calculated. RESULTS: Both MR imaging techniques did not significantly differ in the depiction of external (P > .99) and internal (P > .99) anal sphincter defects. The techniques corresponded in 25 (83%) of 30 patients for the depiction of external anal sphincter defects and in 28 (93%) of 30 patients for the depiction of internal anal sphincter defects. Interobserver agreement was moderate to good for endoanal MR imaging and poor to fair for external phased-array MR imaging. Intraobserver agreement ranged from fair to very good for both imaging techniques. CONCLUSION: External phased-array MR imaging is comparable to endoanal MR imaging in the depiction of clinically relevant anal sphincter defects. Because of the weak interobserver agreement, both MR imaging techniques can be recommended in the diagnostic work-up of fecal incontinence only if sufficient experience is available. (c) RSNA, 2005.

Costs of outpatients with fecal incontinence.
Deutekom M, Dobben AC, Dijkgraaf MG, Terra MP, Stoker J, Bossuyt PM
Scand J Gastroenterol 2005 May;40(5):552-8.
OBJECTIVE: Fecal incontinence is a problem with a high prevalence. Patients generally suffer from their problems for many years. It has been shown that quality of life is negatively affected but health economic data for fecal incontinence are limited. The aim of this study was to estimate the costs associated with fecal incontinence in a large outpatient study group, taking a societal perspective. MATERIAL AND METHODS: Based on questionnaire data, we calculated the costs of health-care resources, out-of-pocket expenses and costs associated with production losses in paid and unpaid work. RESULTS: Data were available for 253 patients, of which 228 (90%) were female and 209 (83%) were treated in an academic medical center. The mean age of patients was 59 years (SD+/-13) with a mean duration of incontinence of 8.5 years (SD+/-8.3). Total costs were estimated on C2169 per fecal incontinent patient per year. Production losses in paid and unpaid work accounted for more than half of the total costs and costs of health-care visits accounted for almost a fifth of total costs. Costs associated with protective material (partially reimbursable and not reimbursable) formed only one-tenth of total costs, while incontinence medication was responsible for only 5% of total costs. CONCLUSIONS: More than half of total costs of fecal incontinence are made up of indirect non-medical costs. The costs associated with the use of incontinence material and other personal expenses are limited.

7 – PAIN 2005 07
Sexual dysfunction in female subjects with fibromyalgia.
Tikiz C, Muezzinoglu T, Pirildar T, Taskn EO, Frat A, Tuzun C
J Urol 2005 Aug;174(2):620-3.

Prevalence of interstitial cystitis symptoms in a managed care population.
Clemens JQ, Meenan RT, O'Keeffe Rosetti MC, Brown SO, Gao SY, Calhoun EA
J Urol 2005 Aug;174(2):576-80.
PURPOSE: We calculated the prevalence of symptoms typically associated with interstitial cystitis (IC) in men and women in a managed care population in the Pacific Northwest. MATERIALS AND METHODS: International Classification of Diseases-9 based queries of the Kaiser Permanente Northwest, Portland, Oregon database were used to identify subjects with IC exclusion criteria, who were excluded from further analysis. A total of 10,000 questionnaires, including 5,000 for women and 5,000 for men, were mailed to subjects with codes indicating bladder symptoms and to those with none of the codes. The questionnaires

included questions about the presence of IC symptoms and the O'Leary-Sant interstitial cystitis questionnaire. IC symptoms were defined in 2 ways, that is as 1) pelvic pain at least 3 months in duration plus urgency or frequency at least 3 months in duration and 2) the same criteria plus pain increasing as the bladder fills and/or pain relieved by urination. RESULTS: The prevalence of IC symptoms according to definitions 1 and 2 was 11.2% and 6.2% in women, and 4.6% and 2.3% in men, respectively. Symptoms were long-standing (duration greater than 1 year in 80% of cases) and bothersome (severity score 5 or greater in greater than 50%). Mean O'Leary-Sant interstitial cystitis questionnaire scores were 15.94 in subjects with definition 1 IC symptoms, 18.97 in those with definition 2 IC symptoms and 6.69 in those with no IC symptoms ($p < 0.001$). Symptoms were most common and most severe in subjects previously diagnosed with IC. CONCLUSIONS: The prevalence of IC symptoms is 30 to 50-fold higher in women and 60 to 100-fold higher in men than the prevalence of a coded physician diagnosis of IC in the same population. Although these findings are not conclusive, they imply that IC may be significantly under diagnosed.

Serum adiponectin concentrations are decreased in women with endometriosis.
Takemura Y, Osuga Y, Harada M, Hirata T, Koga K, Morimoto C, Hirota Y, Yoshino O, Yano T, Taketani Y
Hum Reprod 2005 Jul 29;.
BACKGROUND: Adiponectin is a pleiotropic cytokine originally discovered as an adipocyte-specific gene product. Serum adiponectin concentrations have been reported to be low in women with endometrial cancer, breast cancer and uterine leiomyoma, suggesting possible involvement of adiponectin in these estrogen-related diseases. We thus addressed the relevance of adiponectin to endometriosis, an estrogen-dependent disease, in the present study. METHODS: Women with (n = 48) and without (n = 30) endometriosis undergoing laparoscopy were recruited in this study. Blood samples were collected, and serum adiponectin concentrations were measured using a specific enzyme-linked immunosorbent assay. The relationship between laparoscopic findings and serum adiponectin concentrations was analysed. RESULTS: The adiponectin concentrations in the serum of the women with endometriosis (median, 13.1 microg/ml; interquartile range, 10.2-16.7) were significantly lower than those of the women without endometriosis (15.9 microg/ml, 13.5-19.5; P = 0.008). A significant negative correlation was found between serum adiponectin concentrations and both endometriosis scores (R = - 0.307, P = 0.006) and adhesion scores (R = - 0.254, P = 0.026) of the revised American Society for Reproductive Medicine classification of endometriosis. CONCLUSIONS: The present findings suggest that adiponectin is implicated in the pathophysiology of endometriosis.

GnRH II as a possible cytostatic regulator in the development of endometriosis.
Morimoto C, Osuga Y, Yano T, Takemura Y, Harada M, Hirata T, Hirota Y, Yoshino O, Koga K, Kugu K, Taketani Y
Hum Reprod 2005 Jul 21;.

Subjective and objective sleep indices in women with irritable bowel syndrome.
Heitkemper M, Jarrett M, Burr R, Cain KC, Landis C, Lentz M, Poppe A
Neurogastroenterol Motil 2005 Aug;17(4):523-30.
Abstract Patients with irritable bowel syndrome (IBS) commonly report sleep disturbances. This study examined self-report (Pittsburgh Sleep Quality Inventory) sleep quality and polysomnography (PSG) sleep variables in 18 women with mild-to-moderate IBS, 18 with severe IBS and 38 with age- and gender-matched controls. All women were studied on two consecutive nights in a sleep research laboratory where PSG data were collected. Retrospective and daily measures were obtained of self-reported sleep quality, psychological distress and gastrointestinal symptoms across one menstrual cycle. Self-report measures of psychological distress and sleep quality were significantly worse in the IBS-severe (IBS-S) group compared with controls. Rapid eye movement (REM) latency was higher in the two IBS groups on Night 1 than the control group (P = 0.06). Percentage time in REM was highest in the IBS-S on Night 2. All groups demonstrated greater sleep disruption on Night 1 (adaptation) when compared with Night 2. These results highlight the importance of considering the 'first-night effect' in those with IBS and the lack of concordance between self-report and objective indices of sleep in women with IBS.

Central cholecystokinin activity in irritable bowel syndrome, panic disorder, and healthy controls.
Koszycki D, Torres S, Swain JE, Bradwejn J
Psychosom Med 2005 Jul-Aug;67(4):590-5.
OBJECTIVE: Irritable bowel syndrome (IBS) and panic disorder (PD) coexist with a high frequency. However, the nature of this relationship remains obscure. We have proposed that PD and IBS may share a common dysfunction of the central cholecystokinin (CCK) system. To test this hypothesis, we assessed whether the enhanced panicogenic response to CCK-tetrapeptide (CCK-4) observed in PD is also present in

IBS. METHODS: Eight psychiatrically healthy IBS patients, 8 PD patients with no history of IBS, and 12 normal controls received a bolus injection of CCK-4 and placebo on two separate days in a double-blind, randomized fashion. RESULTS: Consistent with previous findings, panicogenic sensitivity to CCK-4 was enhanced in PD patients relative to controls. In contrast, IBS patients exhibited a response that was comparable to controls. Interestingly, CCK-4-induced nausea and abdominal distress were decreased in IBS patients relative to the other groups. No diagnostic difference was noted for cardiovascular response to CCK-4. CONCLUSION: These data indicate that IBS patients with no lifetime psychiatric history do not share the CCK-2 receptor dysfunction implicated in the pathophysiology of PD and that this dysfunction may not be a common mechanism for both CNS and enteric nervous system disorders. Nevertheless, the results suggest that a dysfunction of the CCK system may be involved in the pathophysiology of some enteric symptoms associated with IBS.

Response to intestinal provocation monitored by transabdominal ultrasound in patients with food hypersensitivity.
Arslan G, Gilja OH, Lind R, Florvaag E, Berstad A
Scand J Gastroenterol 2005 Apr;40(4):386-94.
OBJECTIVE: Owing to lack of objective measures, the diagnosis of food hypersensitivity may be difficult. The aim of this study was to investigate whether the intestinal response to direct provocation in patients with food hypersensitivity could be recognized by ultrasound. MATERIAL AND METHODS: Thirty-two patients with chronic abdominal complaints, self-attributed to food hypersensitivity/allergy were included in the study. Via a nasoduodenal tube, the duodenal mucosa was challenged with the suspected food item dissolved in 10 ml water or saline. Using external ultrasound, the sonographic features (wall thickness and diameter of the duodenal bulb and jejunum, peristalsis activity and luminal fluid) were recorded before and during one hour after challenge. RESULTS: Sonographic changes were observed after challenge in 14 (44%) of the 32 patients. A positive sonographic response (increased wall thickness, diameter, peristalsis and/or luminal fluid) was significantly related to a positive skin prick test ($p = 0.008$) and a positive double-blind placebo-controlled food challenge ($p = 0.03$). A significant correlation was found between provocation-induced symptoms and wall thickness of the duodenal bulb ($r = 0.50$, $p = 0.004$) or the jejunum ($r = 0.42$, $p = 0.02$). Intra- and interobserver variation of the tracing procedure showed low values. CONCLUSIONS: Responses of the proximal small intestines to direct provocation (swelling of the wall and exudation of fluid into the lumen) could be visualized by transabdominal ultrasound. This new provocation test could be helpful in the evaluation of patients with food hypersensitivity.

8 – FISTULAE 2005 07

Rectovaginal fistula after Posterior Intravaginal Slingplasty and Polypropylene mesh augmented rectocele repair.
Hilger WS, Cornella JL
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 29;.
Posterior Intravaginal Slingplasty and mesh augmented rectocele repairs are procedures promoted for correction of vaginal relaxation. There is little data on the complications of these procedures alone or in combination. The first report of rectovaginal fistula after Posterior Intravaginal Slingplasty with graft augmented rectocele repair is presented. A 60-year-old female developed a rectovaginal fistula 3 months after undergoing a Posterior Intravaginal Slingplasty and mesh augmented rectocele repair for prolapse. Two attempts at correcting the fistula failed and there was a recurrence of her vault prolapse. She may now require diverting colostomy and repeat repair of her vault prolapse. The case report highlights the difficulties in treating a rectovaginal fistula that developed after Posterior Intravaginal Slingplasty and mesh augmented rectocele repair for vaginal vault prolapse. More data regarding complications associated with use of these procedures is needed prior to widespread use.

9 – BEHAVIOUR, PSYCHOLOGY, SEXOLOGY 2005 07

Penile sensitivity and sexual satisfaction after circumcision: are we informing men correctly?
Masood S, Patel HR, Himpson RC, Palmer JH, Mufti GR, Sheriff MK
Urol Int 2005;75(1):62-6.

Dating violence in college women: associated physical injury, healthcare usage, and mental health symptoms.
Amar AF, Gennaro S

Nurs Res 2005 Jul-Aug;54(4):235-42.

A study of finger lengths, semen quality and sex hormones in 360 young men from the general Danish population.
Bang AK, Carlsen E, Holm M, Petersen JH, Skakkebaek NE, Jorgensen N
Hum Reprod 2005 Jul 8;.

Personality factors as determinants of depression in postpartum women: a prospective 1-year follow-up study.
Verkerk GJ, Denollet J, Van Heck GL, Van Son MJ, Pop VJ
Psychosom Med 2005 Jul-Aug;67(4):632-7.

Effects of partner support on resting oxytocin, cortisol, norepinephrine, and blood pressure before and after warm partner contact.
Grewen KM, Girdler SS, Amico J, Light KC
Psychosom Med 2005 Jul-Aug;67(4):531-8.
OBJECTIVE: We examined whether the magnitude of plasma oxytocin (OT), norepinephrine (NE), cortisol, and blood pressure (BP) responses before and after a brief episode of warm contact (WC) with the spouse/partner may be related to the strength of perceived partner support. METHODS: Subjects were 38 cohabiting couples (38 men, 38 women) aged 20 to 49 years. All underwent 10 minutes of resting baseline alone, 10 minutes of WC together with their partner, and 10 minutes of postcontact rest alone. RESULTS: Greater partner support (based on self-report) was related to higher plasma oxytocin in men and women across the protocol before and after WC. In women, higher partner support was correlated with lower systolic blood pressure (SBP) during solitary rest after WC but not before. Also, higher OT in women was linked to lower BP at baseline and to lower NE at all 4 measurements. CONCLUSION: Greater partner support is linked to higher OT for both men and women; however, the importance of OT and its potentially cardioprotective effects on sympathetic activity and BP may be greater for women.

Tadalafil-Associated Priapism.
King SH, Hallock M, Strote J, Wessells H
Urology 2005 Jul 26;.

Colon motility during a panic attack.
Hyman PE, Cocjin J
Psychosom Med 2005 Jul-Aug;67(4):616-7.
OBJECTIVE: To document the temporal relationship between a panic attack and high amplitude propagating contractions. METHODS: Colon manometry was used to discriminate between functional defecation problems and colon neuromuscular disease. By chance, the patent developed a panic attack during the test session. RESULTS: Coincident with the panic attack, there was a continuous series of high amplitude propagating contractions. There were 15 high amplitude propagating contractions over 45 minutes, initially at a rate of 4 per 10 minutes, gradually slowing to 1.5 per 10 minutes. CONCLUSIONS: These data may explain the cause for gastrointestinal distress and diarrhea in some patients with panic attacks.

Does vaginal reconstructive surgery with or without vaginal hysterectomy or trachelectomy improve sexual well being? A prospective follow-up study.
Stoutjesdijk JA, Vierhout ME, Spruijt JW, Massolt ET
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 16;.
Objective: To compare sexual well being in women with pelvic organ prolapse before and after vaginal reconstructive surgery. Methods: Sixty-seven women, mean age 61 (36-85) years, who underwent vaginal reconstructive surgery, were asked to complete detailed questionnaires before and after surgery. In addition, they underwent a physical examination using the Pelvic Organ Prolapse Quantification (POPQ), before surgery and at follow-up. Results: Mean duration of follow-up was 14.4 months (6.6-27.6 months). The overall satisfaction with the operation was high with a mean of 7.5 on a visual analogue scale from 0 to 10. There was a significant improvement of dyspareunia after vaginal reconstructive surgery. The ability to have intercourse, the satisfaction with intercourse as well as the frequency of intercourse also improved although not significantly. Urine loss during intercourse improved significantly. Conclusion: Vaginal reconstructive surgery for pelvic organ prolapse has a positive effect on the sexual well being of the afflicted women.

Sexual activity and lower urinary tract symptoms.
Moller LA, Lose G
Int Urogynecol J Pelvic Floor Dysfunct 2005 Jul 29;.

Lower urinary tract symptoms (LUTS) have a profound impact on women's physical, social, and sexual well being. The LUTS are likely to affect sexual activity. Conversely, sexual activity may affect the occurrence of LUTS. The aims of the study were to elucidate to which extent LUTS affect sexual function and to which extent sexual function affect LUTS in an unselected population of middle-aged women in 1 year. A questionnaire was sent to 4,000 unselected women aged 40-60 years. All 2,284 women (57.1%) who completed a baseline questionnaire and a similar questionnaire 1-year later were included. Data comprised age, occurrence of LUTS, hormonal status, and sexual activity. A multiple conditional logistic regression model was used to analyze the relationship between sexual activity and LUTS adjusted for age and hormonal status. At baseline and 1-year later, 49 women (2.2%) had no sexual intercourse, and 298 women (13.0%) either ceased or resumed sexual relationship. Compared to women having sexual relationship, a statistically significant three to sixfold higher prevalence of LUTS was observed in women with no sexual relationship. In women who ceased sexual relationship an increase, although not statistically significant, in the de novo occurrence of most LUTS was observed. In women who resumed sexual relationship an insignificantly decrease in LUTS was observed. In women whose sexual activity was unchanged no change in the occurrence of LUTS was observed. Our study confirms a close association between sexual activity and the occurrence of LUTS. A hypothesis that sexual inactivity may lead to LUTS and vice versa cannot be rejected.

10 – MISCELLANEOUS 2005 07

Comparative investigation of alloplastic materials for hernia repair with improved methodology.
Kapischke M, Prinz K, Tepel J, Tensfeldt J, Schulz T
Surg Endosc 2005 Jul 14;.
BACKGROUND: A variety of alloplastic materials are used for hernia repair. We discuss the long-term stability and possible shrinkage of these materials. In the past, measurement of pore sizes was used to study the physical properties of alloplastic meshes. The aim of this study was to evaluate the measurement of pore sizes with regard to its correlation to possible mesh alteration. METHODS: The water absorption of different polypropylene (PP) and polyester (PE) mesh materials under defined conditions was studied. For shrinkage studies, meshes were stored in formaldehyde, distilled water, saline solution, trypsin solution, urea solution, and hydrogen peroxide. The measurement of the relation between material and pore was evaluated to investigate the potential shrinking and enlargement processes. This material-pore index (MPI) before as well as 1, 7, and 14 days after incubation was measured. RESULTS: In comparison to measuring single pore sizes, MPI determination is the more efficient method to evaluate the possible shrinking or enlargement processes of alloplastic materials. With this technique, incorrect determination of pore sizes due to the dynamic textile structure of meshes and to shrinkage or enlargement, is excluded. All tested alloplastic materials showed an insignificant increase in water absorption under the condition of rehydration up to 0.4%. We did not observe variances in the material in shrinking or enlargement. CONCLUSIONS: MPI was found to be more reliable than measuring single pores to investigate possible external influences on polymer materials. Biomaterials such as PP and PE proved to be absolutely inert under various in vitro conditions.

Atresia of the colon.
Etensel B, Temir G, Karkiner A, Melek M, Edirne Y, Karaca I, Mir E
J Pediatr Surg 2005 Aug;40(8):1258-68.
BACKGROUND/PURPOSE: Colonic atresia (CA) is one of the rarest causes of neonatal intestinal obstructions, and no large series can be reported. Therefore, we did perform a retrospective clinical trial to delineate our CA cases and carry out a literature survey. METHODS: We reviewed the charts of CA cases treated in our center between 1992 and 2002. We aimed to collect all reported cases in Medline, and personal communications with the authors of published series were used to reach the missing data. RESULTS: The chart review revealed 9 newborns with CA treated in our center (6 cases of type III, 2 cases of type II, and 1 case of type IV). These accounted for 3.7% of all gastrointestinal atresias managed in our center. Of the CA cases, 3 were isolated and 6 had at least one or more associated congenital anomalies. The preferred surgical technique at the initial treatment of CA was performing a proximal stoma and distal mucous fistula in an average of postnatal 59.4 hours. The literature survey enabled us to reach 224 cases of CA, including our cases. CONCLUSIONS: Because of the low incidence of CA, delay in diagnosis and treatment may occur. The mortality is statistically higher when the surgical management is performed after 72 hours of age. However, the prognosis of CA is satisfactory if diagnosis and surgical management could be made promptly and properly.

Sjogren's syndrome.
Fox RI
Lancet 2005 Jul 23-29;366(9482):321-31.

Sjogren's syndrome is a chronic autoimmune disorder of the exocrine glands with associated lymphocytic infiltrates of the affected glands. Dryness of the mouth and eyes results from involvement of the salivary and lacrimal glands. The accessibility of these glands to biopsy enables study of the molecular biology of a tissue-specific autoimmune process. The exocrinopathy can be encountered alone (primary Sjogren's syndrome) or in the presence of another autoimmune disorder such as rheumatoid arthritis, systemic lupus erythematosus, or progressive systemic sclerosis. A new international consensus for diagnosis requires objective signs and symptoms of dryness including a characteristic appearance of a biopsy sample from a minor salivary gland or autoantibody such as anti-SS-A. Exclusions to the diagnosis include infections with HIV, human T-lymphotropic virus type I, or hepatitis C virus. Therapy includes topical agents to improve moisture and decrease inflammation. Systemic therapy includes steroidal and non-steroidal anti-inflammatory agents, disease-modifying agents, and cytotoxic agents to address the extraglandular manifestations involving skin, lung, heart, kidneys, and nervous system (peripheral and central) and haematological and lymphoproliferative disorders. The most difficult challenge in diagnosis and therapy is patients with symptoms of fibromyalgia (arthralgia, myalgia, fatigue) and oral and ocular dryness in the presence of circulating antinuclear antibodies.

Sexual Function-Preserving Cystectomy.
Tal R, Baniel J
Urology 2005 Jul 22;.

Prognostic factors in a recent series of patients treated with radical cystectomy for bladder cancer.
Novara G, Ficarra V, Alrabi N, Dalpiaz O, Martignoni G, Galfano A, Cavalleri S, Artibani W
Urol Int 2005;75(1):10-6.
OBJECTIVE: To identify the clinical and pathological prognostic factors in a homogeneous series of patients with bladder cancer who had undergone radical cystectomy in the late 1990s. MATERIALS AND METHODS: We retrospectively analyzed the clinical data of 156 patients who had undergone radical cystectomy and iliac-obturator lymphadenectomy for bladder carcinoma at our department between 1995 and 2001. RESULTS: The mean follow-up was 39.71 +/- 26.2 months. The 5-year overall and cancer-specific survival rates were 47.2 and 54.7%, respectively. Upper urinary tract obstruction ($p = 0.03$), clinical stage of both the primary tumor ($p = 0.0001$) and loco-regional lymph nodes ($p = 0.04$), pathological stage (2002 TNM) of the primary tumor ($p < 0.0001$), pathological loco-regional lymph node involvement ($p < 0.0001$), and vascular embolization ($p = 0.005$) were significant on univariate analysis. Pathological lymph node involvement ($p = 0.001$) and both pathological ($p = 0.022$) and clinical stages of the primary tumor ($p = 0.002$) turned out to be independent predictors of cancer-specific survival. CONCLUSION: Pathological lymph node involvement, clinical and pathological stage of the primary tumor were the cancer-specific, survival-independent, predictors in our series. Our multivariate analysis data identified pT3-4 and pN+ patients as those with the worst prognosis.

Polyorchidism: A case report and review of the literature.
Holland AJ
J Pediatr Surg 2005 Jul;40(7):1219.

Ambulatory surgery in urogynaecology.
Ghoshal S, Smith AR
Best Pract Res Clin Obstet Gynaecol 2005 Jul 27;.
Ambulatory surgery offers advantages to both patients and providers. It is imperative to ensure appropriate case selection, pre-operative counseling, a suitable environment, trained staff, adequate analgesia and post-operative care both in the hospital and the community. Many well-established urogynaecological procedures such as cystoscopy and vaginal repair may be performed in an ambulatory setting. Newer procedures such as injection of botulinum toxin or peri-urethral bulking agents and tension-free tapes for stress incontinence may also be performed in this way. To date, the literature is deficient in robust studies comparing outcomes and patient satisfaction between conventional and ambulatory surgical procedures, and randomized controlled trials are required.

Urinary control after the definitive reconstruction of cloacal anomaly.
Shimada K, Matsumoto F, Tohda A, Ainoya K
Int J Urol 2005 Jul;12(7):631-6.
Purpose : Urinary control after definitive repair of a cloacal anomaly is difficult to achieve. The present report aims to describe the clinical course of urinary control, and the need for the management of bladder dysfunction after reconstruction. Methods : The present consecutive series consisted of 11 girls who underwent definitive repair of cloacal anomalies over a period of 11 years. Eight patients were associated

with hydrocolpos. Radiological examination included a plain X-ray radiograph of the lumbosacral spine and a voiding cystourethrography with or without a urodynamic study. Results : Reconstruction of the cloaca was performed on patients aged between 1 and 3 years using a posterior sagittal approach. Vaginal reconstruction was carried out 13 times in 11 patients using tubularized vaginal flap, distal rectal segment, perineal skin flap, or total urogenital sinus mobilization. Cystostomy or vesicostomy was carried out in four newborns/infants. Another seven patients could void spontaneously but incompletely with residual urine. Occult spinal dysraphism was found in five patients and hemisacrum in two patients. After definitive reconstruction, most patients acquired an adequate to normal bladder volume for 1-year-olds. Normal detrusor-sphincter function was seen in three patients. Detrusor areflexia was seen in two patients who underwent in utero vesico-amniotic shunt. Detrusor underactivity was observed in six patients. Bladder compliance was good in all patients except for one. No patients in the present series showed persistent urinary incontinence from the bladder neck or urethral dysfunction. Conclusion : It is postulated that wetting after definitive repair may be the result of overflow incontinence and poor bladder contractility rather than sphincter injury. The main clinical characteristic of bladder dysfunction was a failure to empty. We could not define the exact etiology, but iatrogenic injury from extensive dissection can lead to the higher risks of peripheral nerve damage. Accomplishment of definitive repair involves not only anatomical reconstruction, but also postoperative urinary control, including the initiation of clean intermittent catheterizations under repeated urodynamic evaluations.

Benign breast disease and the risk of breast cancer.
Hartmann LC, Sellers TA, Frost MH, Lingle WL, Degnim AC, Ghosh K, Vierkant RA, Maloney SD, Pankratz VS, Hillman DW, Suman VJ, Johnson J, Blake C, Tlsty T, Vachon CM, Melton LJ 3rd, Visscher DW
N Engl J Med 2005 Jul 21;353(3):229-37.
BACKGROUND: Benign breast disease is an important risk factor for breast cancer. We studied a large group of women with benign breast disease to obtain reliable estimates of this risk. METHODS: We identified all women who received a diagnosis of benign breast disease at the Mayo Clinic between 1967 and 1991. Breast-cancer events were obtained from medical records and questionnaires. To estimate relative risks, we compared the number of observed breast cancers with the number expected on the basis of the rates of breast cancer in the Iowa Surveillance, Epidemiology, and End Results registry. RESULTS: We followed 9087 women for a median of 15 years. The histologic findings were nonproliferative lesions in 67 percent of women, proliferative lesions without atypia in 30 percent, and atypical hyperplasia in 4 percent. To date, 707 breast cancers have developed. The relative risk of breast cancer for the cohort was 1.56 (95 percent confidence interval, 1.45 to 1.68), and this increased risk persisted for at least 25 years after biopsy. The relative risk associated with atypia was 4.24 (95 percent confidence interval, 3.26 to 5.41), as compared with a relative risk of 1.88 (95 percent confidence interval, 1.66 to 2.12) for proliferative changes without atypia and of 1.27 (95 percent confidence interval, 1.15 to 1.41) for nonproliferative lesions. The strength of the family history of breast cancer, available for 4808 women, was a risk factor that was independent of histologic findings. No increased risk was found among women with no family history and nonproliferative findings. In the first 10 years after the initial biopsy, an excess of cancers occurred in the same breast, especially in women with atypia. CONCLUSIONS: Risk factors for breast cancer after the diagnosis of benign breast disease include the histologic classification of a benign breast lesion and a family history of breast cancer.

Endometrial cancer and hormone-replacement therapy.
Wiegratz I, Kuhl H
Lancet 2005 Jul 16-22;366(9481):201-2.

Ovarian Conservation at the Time of Hysterectomy for Benign Disease.
Parker WH, Broder MS, Liu Z, Shoupe D, Farquhar C, Berek JS
Obstet Gynecol 2005 Aug;106(2):219-226.
Objective: Prophylactic oophorectomy is often recommended concurrent with hysterectomy for benign disease. The optimal age for this recommendation in women at average risk for ovarian cancer has not been determined. Methods: Using published age-specific data for absolute and relative risk, both with and without oophorectomy, for ovarian cancer, coronary heart disease, hip fracture, breast cancer, and stroke, a Markov decision analysis model was used to estimate the optimal strategy for maximizing survival for women at average risk of ovarian cancer. For each 5-year age group from 40 to 80 years, 4 strategies were compared: ovarian conservation or oophorectomy, and use of estrogen therapy or nonuse. Outcomes, as proportion of women alive at age 80 years, were measured. Sensitivity analyses were performed, varying both relative and absolute risk estimates across the range of reported values. Results: Ovarian conservation until age 65 benefits long-term survival for women undergoing hysterectomy for benign disease. Women with oophorectomy before age 55 have 8.58% excess mortality by age 80, and those with oophorectomy before

age 59 have 3.92% excess mortality. There is sustained, but decreasing, benefit until the age of 75, when excess mortality for oophorectomy is less than 1%. These results were unchanged following multiple sensitivity analyses and were most sensitive to the risk of coronary heart disease. Conclusion: Ovarian conservation until at least age 65 benefits long-term survival for women at average risk of ovarian cancer when undergoing hysterectomy for benign disease.

Transvaginal hysterectomy or laparoscopically assisted vaginal hysterectomy for nonprolapsed uteri.
Chang WC, Huang SC, Sheu BC, Chen CL, Torng PL, Hsu WC, Chang DY
Obstet Gynecol 2005 Aug;106(2):321-6.
Background: To define a rational guideline for the use of either laparoscopically assisted vaginal hysterectomy (LAVH) or transvaginal hysterectomy in dealing with a nonprolapsed uterus. Methods: A total of 452 patients receiving LAVH or transvaginal hysterectomy were retrospectively studied between October 2002 and October 2004. The operative time, estimated blood loss, uterine weight, and complications were all recorded for analysis. Results: Significant linear correlations of uterine weight with operative time and estimated blood loss could be seen only in the transvaginal hysterectomy group. Transvaginal hysterectomy required significantly shorter operative time, but longer duration when the uterine weight exceeded 350 g. These 452 patients were stratified into 4 subgroups according to the uterine weight and hysterectomy procedure. Data are expressed as the mean +/- standard deviation. For uterine weight less than 350 g, transvaginal hysterectomy had significantly shorter operative time than LAVH (80 +/- 27 minutes compared with 118 +/- 21 minutes, P < .05) but similar blood loss (70 mL compared with 74 mL). For uterine weight 350 g or less, transvaginal hysterectomy had not only significantly longer operative time (139 +/- 30 minutes compared with 118 +/- 17 minutes, P < .05) but also more blood loss (242 +/- 162 mL compared with 66 +/- 51 mL, P < .05) than LAVH. Conclusion: In view of the shorter operative time and less blood loss, LAVH is preferable for uterine weight 350 g or more, whereas transvaginal hysterectomy is better in dealing with uteri weighing less than 350 g. Level of Evidence: II-2.

MRI of vaginal conditions.
Lopez C, Balogun M, Ganesan R, Olliff JF
Clin Radiol 2005 Jun;60(6):648-62.
Magnetic resonance imaging (MRI) has become an important part of the assessment of suspected vaginal pathology. This pictorial review demonstrates the MRI features and some of the histopathological findings of a variety of vaginal conditions. These may be congenital (total vaginal agenesis, partial vaginal agenesis, longitudinal vaginal septum, transverse vaginal septum), benign (Bartholin's cyst, diffuse vaginal inflammation, invasive endometriosis, ureterovaginal fistula, post-surgical appearances with the formation of a neovagina and adhesions) or malignant, usually due to extension or recurrence from another pelvic malignancy. In this paper, examples of the above are described and illustrated together with examples of the much rarer primary vaginal malignancies.

Anorectal Malformations: Does Healthcare Meet the Needs?
Hartman EE, Sprangers MA, Visser MR, Oort FJ, Hanneman MJ, van Heurn LW, de Langen ZJ, Madern GC, Rieu PN, van der Zee DC, Looyaard N, Aronson DC
J Pediatr Gastroenterol Nutr 2005 Aug;41(2):210-215.
OBJECTIVES:: The first aim was to identify the types of healthcare services used by children, adolescents, and adults with anorectal malformation (ARM) in relation to the severity of their disease and to examine whether additional care was needed. The second aim was to evaluate specific areas in the healthcare system, including provided information, transfer from pediatric to adult care, and satisfaction with the provided care. METHODS:: Three hundred eighty-six (61%) patients with ARM, ages 6 to 52, completed a questionnaire that assessed their use of healthcare services and the need for additional services. Also, questions were asked about specific areas in the healthcare system. Clinical and sociodemographic characteristics were extracted from medical records. RESULTS:: In the preceding 6 months 50% of the children, 24% of the adolescents, and 24% of the adults consulted a medical specialist. Compared with patients with a mild form of ARM in the age range of 6 to 16 years, the more severely afflicted patients visited medical professionals more often (18% vs. 32%). Particularly, adolescents in the age range of 12 to 16 years with a severe form of the disease more often visited the pediatric surgeon than their peers with a mild form (2% vs. 16%). Twenty-three percent of the children, 7% of the adolescents, and 8% of the adults consulted a nonmedical professional. Twenty percent of the children, 13% of the adolescents, and 17% of the adults would have liked additional or more treatment of a nonmedical professional. In 6 months, 40% of the children, 24% of the adolescents, and 20% of the adults received treatment information. One third of the adult patients who were transferred to "adult" surgeons encountered transfer problems. Almost all patients were satisfied with the care provided. CONCLUSIONS:: There is good access to medical healthcare

services, especially for children. However, more psychosocial and paramedical care is considered necessary. As could be expected, children and adolescents with a severe form of the disease reported to have visited a medical specialist more often. Although healthcare for patients with ARM may be improved at certain points, most parents and patients were very satisfied with the care provided.

Anal mucosal electric sensation in postoperative patients with anorectal malformations.
Ikeda T, Tomita R, Koshinaga T
J Pediatr Surg 2005 Jul;40(7):1146-50.
BACKGROUND: No previous report has, to our knowledge, been made on anal mucosal electric sensation in postoperative patients with anorectal malformations (ARMs). We studied the anal mucosal electric sensory threshold (AMEST) in comparison with clinical manifestation. METHODS: The study included 25 patients with ARMs who underwent anorectoplasty (ARMs group) and 10 subjects (control group). Based on the type of ARMs, patients were divided into 3 subgroups: high type, n = 14; intermediate type, n = 6; low type, n = 5. The AMEST was measured at 3 positions, at the anal skin margin and 1 and 2 cm from the anal skin margin. The AMEST was analyzed compared with the type of ARMs and clinical manifestation. RESULTS: The AMEST clearly increased at the 3 sites in patients with ARMs, especially those with high and intermediate types, compared with control subjects. The sensitivity threshold in the lower anal canal in the low-type subgroup was about the same as that in the control group. An analysis of clinical manifestations showed significantly increased thresholds in the upper and middle anal canal in the group of patients with difficulty in discriminating between gas and defecation and with fecal incontinence ($P < .01$ and $P < .05$). CONCLUSIONS: The AMEST for the high-type and intermediate-type subgroups in the ARMs group was worse than that in the low-type subgroup and control group. The AMEST in the upper and middle anal canal was important for gas and defecation distinction and fecal maintenance.