FORUM

Riskin DJ, Longaker MT, Gertner M, Krummel TM
OBJECTIVE:: To describe the field of surgical innovation from a historical perspective, applying new findings from research in technology innovation. BACKGROUND:: While surgical innovation has a rich tradition, as a field of study it is embryonic. Only a handful of academic centers of surgical innovation exist, all of which have arisen within the last 5 years. To this point, the field has not been well defined, nor have future options to promote surgical innovation been thoroughly explored. It is clear that surgical innovation is fundamental to surgical progress and has significant health policy implications. A process of systematically evaluating and promoting innovation in surgery may be critical in the evolving practice of medicine. METHODS:: A review of the academic literature in technology innovation was undertaken. Articles and books were identified through technical, medical, and business sources. Luminaries in surgical innovation were interviewed to develop further relevance to surgical history. The concepts in technology innovation were then applied to innovation in surgery, using the historical example of surgical endoscopy as a representative area, which encompasses millennia of learning and spans multiple specialties of care. RESULTS:: The history of surgery is comprised largely of individual, widely respected surgeon innovators. While respecting individual accomplishments, surgeons as a group have at times hindered critical innovation to the detriment of our profession and patients. As a clinical discipline, surgery relies on a tradition of research and attracting the brightest young minds. Innovation in surgery to date has been impressive, but inconsistently supported. CONCLUSION:: A body of knowledge on technology innovation has been developed over the last decade but has largely not been applied to surgery. New surgical innovation centers are working to define the field and identify critical aspects of surgical innovation promotion. It is our responsibility as a profession to work to understand innovation in surgery, discover, translate, and commercialize advances to address major clinical problems, and to support the future of our profession consistently and rationally.

Standards of Reporting of Randomized Controlled Trials in General Surgery: Can We Do Better?
Balasubramanian SP, Wiener M, Alshameeri Z, Tiruvoipati R, Elbourne D, Reed MW
OBJECTIVE:: To evaluate the quality of reporting of surgical randomized controlled trials published in surgical and general medical journals using Jadad score, allocation concealment, and adherence to CONSORT guidelines and to identify factors associated with good quality. SUMMARY BACKGROUND DATA:: Randomized controlled trials (RCTs) provide the best evidence about the relative effectiveness of different interventions. Improper methodology and reporting of RCTs can lead to erroneous conclusions about treatment effects, which may mislead decision-making in health care at all levels. METHODS:: Information was obtained on RCTs published in 6 general surgical and 4 general medical journals in the year 2003. The quality of reporting of RCTs was assessed under masked conditions using allocation concealment, Jadad score, and a CONSORT checklist devised for the purpose. RESULTS:: Of the 69 RCTs analyzed, only 37.7% had a Jadad score of >/=3, and only 13% of the trials clearly explained allocation concealment. The modified CONSORT score of surgical trials reported in medical journals was significantly higher than those reported in surgical journals (Mann-Whitney U test, P < 0.001). Overall, the modified CONSORT score was higher in studies with higher author numbers (P = 0.03), multicenter studies (P = 0.002), and studies with a declared funding source (P = 0.022). CONCLUSION:: The overall quality of reporting of surgical RCTs was suboptimal. There is a need for improving awareness of the CONSORT statement among authors, reviewers, and editors of surgical journals and better quality control measures for trial reporting and methodology.

Nature of Human Error: Implications for Surgical Practice.
Cuschieri A
BACKGROUND:: As the attitude to adverse events has changed from the defensive "blame and shame culture" to an open and transparent healthcare delivery system, it is timely to examine the nature of human errors and their impact on the quality of surgical health care. METHODS:: The approach of the review is
generic rather than specific, and the account is based on the published psychologic and medical literature on the subject. CONCLUSIONS: Rather than detailing the various "surgical errors," the concept of error categories within the surgical setting committed by surgeons as front-line operators is discussed. The important components of safe surgical practice identified include organizational structure with strategic control of healthcare delivery, teamwork and leadership, evidence-based practice, proficiency, continued professional development of all staff, availability of wireless health information technology, and well-embedded incident reporting and adverse events disclosure systems. In our quest for the safest possible surgical health care, there is a need for prospective observational multidisciplinary (surgeons and human factors specialists) studies as distinct for retrospective reports of adverse events. There is also need for research to establish the ideal system architecture for anonymous reporting of near miss and no harm events in surgical practice.

Family issues affecting women in medicine, particularly women surgeons.
Straehley CJ, Longo P

Part-time training in general surgery: results of a web-based survey.
Saalwachter AR, Freischlag JA, Sawyer RG, Sanfey HA
HYPOTHESIS: The recent increase in female medical school enrollment and emphasis on lifestyle considerations for both men and women pose challenges for residency recruitment and retention. This study was designed to assess interest in part-time surgical training. We hypothesized that more women than men would be interested in this option. DESIGN: A Web-based survey soliciting demographic information and opinions about training priorities was distributed to medical students, surgery residents, fellows, and trained surgeons. Respondents were asked to express on a 5-point Likert scale interest in (and deterrents to) substituting 1 or more years of standard residency with a shorter workweek (< 80 hours but > 40 hours) in exchange for a proportionately overall longer length of training. SETTING: The survey was located on the American College of Surgeons Web site. PARTICIPANTS: Medical students (482), surgical residents (789), fellows (179), and fully trained surgeons (2858) affiliated with at least 1 of 4 major surgical societies. RESULTS: There were 4308 respondents (76% male). Of physician respondents, 9.1% had taken time out of residency for nonresearch reasons. Thirty-six percent of female and 24% of male students agreed to increased interest in surgical careers if part-time training were an option (P = .005). Twenty-five percent of female and 13% of male residents (P<.001) expressed interest in this option. Prolonged training was cited as the primary deterrent. CONCLUSIONS: Eleven percent to 36% of total male and female respondents expressed interest in pursuing part-time training. Significantly more women than men favored a part-time option.

Burnout, depression, and career satisfaction: cross-sectional study of obstetrics and gynecology residents.
Becker JL, Milad MP, Klock SC
OBJECTIVE: This study was undertaken to measure career satisfaction among obstetrics and gynecology residents and assess its relationship to burnout, depression, and malpractice concerns. STUDY DESIGN: A 63-item, anonymous, self-administered survey was distributed to residents at 23 randomly selected obstetric and gynecologic residency programs in the United States. The outcome measures included the Maslach Burnout Inventory-Human Services Survey, the Center for Epidemiological Studies-Depression Scale, and perceptions of malpractice and career satisfaction. RESULTS: Eighty-three percent of the residents were either "very or somewhat satisfied" with their career choice. The majority (89.8%) showed evidence of moderate burnout and 34.2% were considered depressed. Ninety-six percent were concerned about malpractice with 35% pursuing fellowship solely because of malpractice concerns. Residents dissatisfied with their career choice were twice as likely to be depressed (30% vs 55%, P = .03). Both emotional exhaustion (P < .0001) and consideration of fellowship because of malpractice (P < .0001) were strongly predictive of diminishing career satisfaction. CONCLUSION: Resident career satisfaction was inversely correlated with burnout and depression, which were more prevalent than expected. Overall, residents were
satisfied with their career choice, but also negatively influenced by malpractice concerns.

The evolving gender gap in general obstetrics and gynecology.
Gerber SE, Lo Sasso AT

OBJECTIVE: The purpose of this study was to analyze the trend in subspecialization among men graduating from obstetrics and gynecology residency programs. STUDY DESIGN: Results of the Survey of Residents Completing Training in New York State were analyzed for 1998 to 2003. The proportions of men and women graduating from residency programs and pursuing subspecialty training were compared. Multivariate regression analysis was conducted to analyze trends over time while controlling for confounding variables.

RESULTS: Seven hundred thirty-seven Ob/Gyn, 1820 pediatrics, and 5007 internal medicine residents responded. The proportion of male graduating Ob/Gyn residents decreased from 46% to 23% (P < .001). Of those men, the proportion that proceeded with subspecialty training increased from 5.3% to 25.0% (P = .01). Women graduating from an Ob/Gyn residency program displayed a similar but smaller trend towards subspecialization, as did men graduating from pediatrics residencies. Men graduating from internal medicine residency programs demonstrated no change. CONCLUSION: As the proportion of men entering Ob/Gyn residency programs declines, the number of men entering general Ob/Gyn is declining at an even more dramatic rate.

The future of medical licensure in the United States.
Thompson JN

What would you do?
Robinson WR
Gynecol Oncol. 2006 Oct 26;.

Cochrane reviews compared with industry supported meta-analyses and other meta-analyses of the same drugs: systematic review.
Jorgensen AW, Hilden J, Gotzsche PC

OBJECTIVE: To compare the methodological quality and conclusions in Cochrane reviews with those in industry supported meta-analyses and other meta-analyses of the same drugs. DESIGN: Systematic review comparing pairs of meta-analyses that studied the same two drugs in the same disease and were published within two years of each other. DATA SOURCES: Cochrane Database of Systematic Reviews (2003, issue 1), PubMed, and Embase. DATA EXTRACTION: Two observers independently extracted data and used a validated scale to judge the methodological quality of the reviews. RESULTS: 175 of 1596 Cochrane reviews had a meta-analysis that compared two drugs. Twenty four meta-analyses that matched the Cochrane reviews were found: eight were industry supported, nine had undeclared support, and seven had no support or were supported by non-industry sources. On a 0-7 scale, the median quality score was 7 for Cochrane reviews and 3 for other reviews (P < 0.01). Compared with industry supported reviews and reviews with undeclared support, Cochrane reviews had more often considered the potential for bias in the review—e.g., by describing the method of concealment of allocation and describing excluded patients or studies. The seven industry supported reviews that had conclusions recommended the experimental drug without reservations, compared with none of the Cochrane reviews (P = 0.02), although the estimated treatment effect was similar on average (z = 0.46, P = 0.64). Reviews with undeclared support and reviews with not for profit support or no support had conclusions that were similar in cautiousness to the Cochrane reviews. CONCLUSIONS: Industry supported reviews of drugs should be read with caution as they were less transparent, had few reservations about methodological limitations of the included trials, and had more favourable conclusions than the corresponding Cochrane reviews.

Systematic reviews and meta-analysis for the surgeon scientist.
Mahid SS, Hornung CA, Minor KS, Turina M, Glandiuk S
BACKGROUND:: Understanding of data-reporting methods is imperative for correct interpretation of the medical literature as well as for proper performance of future clinical research. Recent developments in biostatistics have greatly changed the types of statistical analyses used and the minimum quality standards that must be maintained. METHOD:: Different types of review are described, including systematic review with and without meta-analysis. Minimum reporting standards, sources of bias, both quantitative and qualitative, and references are discussed. RESULTS AND CONCLUSION:: Meta-analysis has become a clearly defined technique, with reporting standards for both randomized controlled trials and observational studies. It is assuming a wider role in the surgical literature. Although many sources of bias exist, there are clear reporting standards and readers should be aware of these when studying the literature. Copyright (c) 2006 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd.

Geographic origin of publications in surgical journals.
van Rossum M, Bosker BH, Pierik EG, Verheyen CC
Br J Surg. 2006 Oct 31;.
BACKGROUND:: Publications in peer-reviewed journals are the main determinants of research rating and funding. The present study assesses worldwide scientific contributions in the field of surgical research. METHODS:: Fifteen major surgical journals were selected for a bibliometric search in Medline/PubMed over a 6-year period (2000-2005). All articles with abstracts were totalled according to country of corresponding author. Publications (total and corrected for population size) and journal impact factor were assessed according to country. RESULTS:: A total of 18 717 articles were identified. Fifteen countries generated 88.8 per cent of these: the USA produced 42.1 per cent, Japan 9.1 per cent and the UK 7.6 per cent. When corrected for population size, the Netherlands, Sweden and Switzerland topped the ranking; the USA was sixth. Ireland and Switzerland scored the highest mean impact factor. CONCLUSION:: The USA is the most productive country in terms of absolute number of surgical publications in the selected journals. However, when population size is taken into consideration, certain smaller European countries were more prolific. Copyright (c) 2006 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd.

Continuing medical education: October 2006.
Scolapio J, Al-Haddad M
If you wish to receive credit for this activity, please refer to the website: http://www.acg.gi.org/journalcme/ Accreditation and Designation Statement: Blackwell Futura Media Services designates this educational activity for a maximum of 1 category 1 credit toward the AMA Physician's Recognition Awardtrade mark. Each physician should claim only those credits that he/she actually spent in the activity. Blackwell Futura Media Services is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. Article: Propofol Alone Titrated to Deep Sedation Versus Propofol in Combination with Opioids and/or Benzodiazepines and Titrated to Moderate Sedation for Colonoscopy.

Games as an innovative teaching strategy for overactive bladder and BPH.
LeCroy C
A challenge for urologic nurses and nurse educators is how to present information to staff, students, and patients in a way that will capture their interest and engage them in the learning process. The use of adult-learning principles and innovative teaching strategies can make the learning experience dynamic, and encourage learners to take a more active role in their own learning. Games are a creative, fun, and interactive way to assist in the emphasis, review, reinforcement, and retention of information for urology nurses.

1 – THE PELVIC FLOOR 2006 10
Preliminary results of sacral neuromodulation in 23 children.
Humphreys MR, Vandersteen DR, Slezak JM, Hollatz P, Smith CA, Smith JE, Reinberg YE
PURPOSE: Sacral nerve stimulation with InterStim is approved in the United States for use in adults. Limited data on the effectiveness of sacral nerve stimulation in children are available. We report our experience with patients who underwent InterStim placement for the treatment of severe dysfunctional elimination syndrome, which is defined as a constellation of functional urinary and gastrointestinal symptoms in patients without anatomical anomalies or obvious neurological disease, in whom intensive medical and behavioral therapies have failed to improve symptoms. MATERIALS AND METHODS: A total of 23 patients 6 to 15 years old with presenting symptoms of dysfunctional voiding, enuresis, incontinence, urinary tract infections, bladder pain, urinary retention, urgency, frequency, constipation and/or fecal soiling were followed for a mean of 13.3 months after InterStim placement. RESULTS: Of the 19 patients with urinary incontinence 3 (16%) had complete resolution, 13 (68%) had improvement, 2 (11%) were unchanged and 1 (5%) was worse (sign test, p = 0.002). Among the 16 patients with nocturnal enuresis 2 (13%) had resolution, 9 (56%) improved, 4 (25%) were unchanged and 1 (6%) was worse (sign test, p = 0.0063). Of the 15 patients with urinary retention requiring intervention 9 (60%) had improvement and 1 had worsening symptoms (sign test, p = 0.022), while 2 of 6 patients (33%) on intermittent catheterization were able to stop. One patient had development of new incontinence and enuresis. Bladder pain, urgency, frequency and constipation improved in 67% (8 of 12), 75% (12 of 16), 73% (11 of 15) and 80% (12 of 15) of the patients, respectively. Medications required postoperatively decreased by an average of 3 per patient (p < 0.001). The overall patient satisfaction rate was 64%, while that of the caregiver was 67%. Two leads were explanted from the 23 patients. Complications encountered included 1 seroma, 1 episode of skin sensitivity, 2 device failures and 1 lead revision. CONCLUSIONS: Sacral nerve stimulation in children is an option for carefully selected patients who have failed other therapies. Our results show that sacral nerve stimulation was effective in the majority of patients with the dysfunctional elimination syndrome. However, longer followup is needed.

Effect of Aging on Anorectal and Pelvic Floor Functions in Females.
Fox JC, Fletcher JG, Zinsmeister AR, Seide B, Riederer SJ, Bharucha AE
Dis Colon Rectum. 2006 Oct 13;
PURPOSE: In females, fecal incontinence often is attributed to birth trauma; however, symptoms sometimes begin decades after delivery, suggesting that anorectal sensorimotor functions decline with aging. METHODS: In 61 asymptomatic females (age, 44 +/- 2 years, mean +/- standard error of the mean) without risk factors for anorectal trauma, anal pressures, rectal compliance, and sensation were assessed by manometry, staircase balloon distention, and a visual analog scale during phasic distentions respectively. Anal sphincter appearance and pelvic floor motion also were assessed by static and dynamic magnetic resonance imaging respectively in 38 of 61 females. RESULTS: Aging was associated with lower anal resting (r = -0.44, P < 0.001) and squeeze pressures (r = -0.32, P = 0.01), reduced rectal compliance (i.e., r for pressure at half-maximum volume vs. age = 0.4, P = 0.001), and lower (P </= 0.002) visual analog scale scores during phasic distentions at 16 (r = -0.5) and 24 mmHg (r = -0.4). Magnetic resonance imaging revealed normal anal sphincters in 29 females and significant sphincter injury, not associated with aging, in 9 females. The location of the anorectal junction at rest (r = 0.52, P < 0.001), squeeze (r = 0.62, P < 0.001), and Valsalva maneuver (r = 0.35, P = 0.03), but not anorectal motion (e.g., from resting to squeeze) was associated with age. CONCLUSIONS: In asymptomatic females, aging is associated with reduced anal resting and squeeze pressures, reduced rectal compliance, reduced rectal sensation, and perineal laxity. Together, these changes may predispose to fecal incontinence in elderly females.

Histological and biomechanical evaluation of implanted graft materials in a rabbit vaginal and abdominal model.
Decellularized human cadaveric dermis provides a safe alternative for primary inguinal hernia repair in contaminated surgical fields.
Albo D, Awad SS, Berger DH, Bellows CF
Bowel dysfunction in patients with motor complete spinal cord injury: clinical, neurological, and
pathophysiological associations.
Valles M, Vidal J, Clave P, Mearin F

BACKGROUND: Abnormal bowel function is a key problem in patients with spinal cord injury (SCI). Previous works provided only partial information on colonic transit time (CTT) or anal dysfunction but did not identified a comprehensive neurogenic bowel pattern. AIM: To evaluate clinical, neurological, and pathophysiological counterparts of neurogenic bowel in patients with motor complete SCI. METHODS: Fifty-four patients (56% men, mean age 35 yr) with chronic motor complete SCI (mean evolution time 6 yr) were evaluated: 41% with injuries above T7 (>T7) and 59% with injuries below T7 (<T7); patients were also classified according to the presence or not of sacral spinal reflexes. Clinical assessment, total and segmental CTT quantification, anorectal function evaluation by manometry, intrarectal balloon distension, and surface electromyography were performed. RESULTS: Three different neuropathophysiological patterns were observed: Pattern A, present in >T7 injuries, characterized by very frequent constipation (86%) with significant defecatory difficulty and not very severe incontinence (Mean Wexner score 4.5); it was related to moderate delay in CTT (mainly in the left colon and recto-sigma), incapacity to increase the intra-abdominal pressure, and the absence of anal relaxation during the defecatory maneuvre; Pattern B, present in <T7 injuries with preserved sacral reflexes, characterized by not so frequent constipation (50%) but very significant defecatory difficulty and not very severe incontinence (Wexner 4.8); the pathophysiological counterpart was a moderate delay in CTT, capacity to increase intra-abdominal pressure, increased anal resistance during the defecatory maneuver, and presence of external anal sphincter (EAS) contraction when intra-abdominal pressure increased and during rectal distension; Pattern C, present in <T7 injuries without sacral reflexes, characterized by not very frequent constipation (56%) with less defecatory difficulty and greater severity of incontinence (Wexner 7.2); this was associated with severe delay in CTT (mainly in the left colon), capacity to increase intra-abdominal pressure, absence of anal resistance during the defecatory maneuver, and absence of EAS contraction when intra-abdominal pressure increased and during rectal distension. CONCLUSION: In patients with motor complete SCI, we were able to define three different neuropathophysiological patterns that are associated with bowel function abnormalities and clinical complaints; this might be of help when designing therapeutic strategies.

2 – FUNCTIONAL ANATOMY 2006 10

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
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.

[Contribution to the anatomical-morphological study of the pelvic floor in the asymptomatic female: the use of MRI imaging]
Caufriez M, Fernandez Dominguez JC, Bouchant B, Lemort M, Snoeck T
Arch Esp Urol. 2006 Sep;59(7):675-89.
OBJECTIVES: To confirm the results of previous studies demonstrating the morphology of the levator ani muscle in the living subject is different to that described in classic anatomical works; to evaluate the anatomical-morphological differences of the pelvic floor between nulliparous and multiparous women in order to analyze the influence of pregnancy and delivery. METHODS: Comparative study of the morphological
variations of the iliococcygeous fascicle of the levator ani muscle between two groups of females using T2 MRI: the first group included 11 nulliparous women and the second group 9 multiparous women. The curvature radius of the fascicles was calculated in the frontal projections. The differences in height were also calculated. The anterior limit of the iliococcygeus muscle dome was determined in the sagittal plane. The software Image Tool 3.0 was employed for the measurements. The Kolmogorov-Smirnov test was employed to analyze the distribution of the study populations; mean value comparisons between groups were performed by the Student's t test. Finally, the various morphological measurements were compared in relation to various parameters: parity, side, body mass index (BMI), sports practice, menstrual cycle phase, and presence or absence of episiotomy. Data obtained were analyzed using the Fisher's exact test, with a statistical significance of p < 0.05.

RESULTS: Morphological measurements: We observed that the concavity of the iliococcygeal fascicle dome is larger in nulliparous women (p = 0.03 for the right side and p = 0.04 for the left). Moreover, these women have the domes significantly more anterior (p < 0.001 for both sides). Comparisons between other variables: an association between nulliparous status and the presence of a higher and more anterior left dome, and multiparous status and a higher and more anterior right dome were (p = 0.02).

CONCLUSIONS: The hypothesis of the pelvic floor morphology being a double dome with inferior-posterior concavity in the living asymptomatic female is confirmed. We also demonstrate the existence of anatomical-morphological differences in the iliococcygeal muscle of the levator ani between nulliparous and multiparous females, which seems to confirm a relationship with pregnancy and/or delivery.

Topographic Anatomy of a New Posterior Approach to the Pudendal Nerve for Stimulation.
Eur Urol. 2006 Oct 18;

OBJECTIVES: To describe a new approach to the pudendal nerve from a dorsal direction in terms of topographic anatomy and to discuss pudendal nerve neurophysiology in light of the rationale behind pudendal nerve stimulation to treat lower urinary tract disorders. MATERIALS AND METHODS: Cadavers of four women aged 78-87 yr were studied. After placing the cadavers in prone position with a 40 degrees -60 degrees flexion of the hips and determining anatomic landmarks, a 20-G insulated needle was inserted close to the pudendal nerve. Then the topographic relationships of the puncture with the pudendal canal were explored by dissection. RESULTS: The mean points of insertion of the needle were 14cm inside the great trochanter, 9cm above the ischiatic tuberosity, and 6cm outside the gluteal fold. If the needle was inserted 6.5cm under the previous with an orifice of 60 degrees and this route was followed, the needle could have a contact area with the pudendal nerve larger, leading to a greater stimulation efficacy with less stimulation intensities. The rectum was so far away that a rectal injury with the needle seemed unlikely. No vascular structure was at the contact of the nerve. CONCLUSIONS: The described new puncture technique to reach the pudendal nerve provides easy and safe accessibility of the nerve for stimulation. In light of our increasing understanding of the rationale behind neuromodulative stimulation, the pudendal nerve could be a promising target for continuous lower urinary tract neuromodulation by implant.

A method of dissecting the pelvic floor to allow anatomical validation of images of the soft tissues.
Shulver H, Bartram CI, Hudson CN
Clin Anat. 2006 Oct 27;

A method of intact postmortem removal of the pelvic floor for imaging correlation studies, with minimal access disfigurement, is described. This consists of subcutaneous removal of both ischiopubic rami with division of the obturator membrane cranial to the origin of the levator ani muscles. The anatomical relationships of soft tissue surrounding the distal birth canal are thus preserved. The report discusses the need for, constraints on, and limitations of such studies in the unique problems of determining the dynamic anatomical configuration of the soft tissues of the pelvic floor. It illustrates the clinical relevance of initial studies, and reviews the background contributions of members of the group. Clin. Anat., 2007. (c) 2006 Wiley-Liss, Inc.

Supraspinal Site of Action for the Inhibition of Ejaculatory Reflex by Dapoxetine.
Clement P, Bernabe J, Gengo P, Denys P, Laurin M, Alexandre L, Giuliano F
Eur Urol. 2006 Oct 18;
The effects of duloxetine on urethral function and sphincter morphology.
Athanasiou S, Chaliha C, Digesu GA, Sotiropoulou M, Georgoulis N, Khullar V, Antsaklis A
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 24;.

Functional analysis of active urethral closure mechanisms under sneeze induced stress condition in a rat model of birth trauma.
Kamo I, Kaiho Y, Canon TW, Chancellor MB, de Groat WC, Prantil RL, Vorp DA, Yoshimura N


Influence of Body Position and Stool Characteristics on Defecation in Humans.
Rao SS, Kavlock R, Rao S
Am J Gastroenterol. 2006 Oct 6;.
BACKGROUND: Whether defecation is influenced by body position or stool characteristics is unclear. AIM: We investigated effects of body position, presence of stool-like sensation, and stool form on defecation patterns and manometric profiles. METHODS: Rectal and anal pressures were assessed in 25 healthy volunteers during attempted defecation either in the lying or sitting positions and with balloon-filled or empty rectum. Subjects also expelled a water-filled (50 cc) balloon or silicone-stool (FECOM) either lying or sitting and rated their stooling sensation. RESULTS: When attempting to defecate in the lying position, a dyssynergic pattern was seen in 36% of subjects with empty rectum and 24% with distended rectum. When sitting, 20% showed dyssynergia with empty rectum and 8% with distended rectum. More subjects (p < 0.05) showed dyssynergia in lying position. When lying, 60% could not expel balloon and 44% FECOM. When sitting, fewer (p < 0.05) failed to expel balloon (16%) or FECOM (4%). FECOM expulsion time was quicker (p < 0.02). Stool-like sensation was more commonly (p < 0.005) evoked by FECOM than balloon. CONCLUSIONS: In the lying position, one-third showed dyssynergia and one-half could not expel artificial stool. Whereas when sitting with distended rectum, most showed normal defecation pattern and ability to expel stool. Thus, body position, sensation of stooling and stool characteristics may each influence defecation. Defecation is best evaluated in the sitting position with artificial stool.

Sonographic Characteristics of Rectal Sensations in Healthy Females.
Orno AK, Herbst A, Marsal K
Dis Colon Rectum. 2006 Nov 3;.
PURPOSE: This study was designed to characterize rectal sensations by visualizing the internal and external anal sphincter and intra-anal transport of bolus during elicited rectal sensations. METHODS: The anal canal was visualized with real-time transperineal ultrasonography in 13 healthy female volunteers. Rectal sensations were elicited by injecting water into the rectum. The ultrasound images were recorded on a videotape and analyzed offline. RESULTS: The median time between an injection of water and the events studied was calculated in 105 rectal sensations. A relaxation in the internal anal sphincter (4 seconds after the injection of water), an antegrade transport of bolus (4 seconds) into the anal canal, and a contraction in the external anal sphincter (5 seconds) were observed before a sensation (6 seconds) was reported. The antegrade flow continued until the distal internal anal sphincter contracted (18 seconds) and the bolus moved in a retrograde transport direction (17 seconds) thereafter the sensation disappeared (18 seconds) and the external anal sphincter relaxed (22 seconds). A significant correlation in time between the end of the sensation, contraction in the internal anal sphincter, reversed flow of anal contents, and relaxation of the external anal sphincter was found (Pearson, P<0.01). CONCLUSIONS: The results verified that the internal anal sphincter contributes to the perception of rectal sensations by a relaxation allowing intra-anal bolus to increase the pressure on the anoderm during rectal contraction. A new observation is presented on the time relation between contraction in the distal internal anal sphincter, reversed flow in the anal canal, and the end of rectal sensations.
The role of the sympathetic nervous system in intestinal inflammation.
Straub RH, Wiest R, Strauch UG, Harle P, Scholmerich J

3 – DIAGNOSTICS 2006 10

Interrater reliability of assessing levator ani muscle defects with magnetic resonance images.
Morgan DM, Umek W, Stein T, Hsu Y, Guire K, Delancey JO
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 17;
The objective of this study is to determine interrater reliability of assessing pubovisceral levator ani muscle defects with magnetic resonance images. Normal pubovisceral muscle was assigned a grade of 0; PVM defects were graded as mild = 1 (less than half missing), moderate = 2 (more than half missing), and severe = 3 (total or near total loss). Among six pairs of examiners, percent agreement and weighted kappa coefficients were calculated to determine agreement between pairs of examiners and among all examiners (i.e., "overall"). For unilateral scoring, exact agreement was found in 83.7%, and differences of one, two, and three grades were found in 14.7, 1.5, and 0.1%, respectively. For bilateral scoring, exact agreement and differences of one, two and three grades were found in 75.4, 15.9, 6.9, and 1.6%, respectively. Thus, exact agreement or a one-point difference was reached in 91.3% of cases. When defect status was categorized as none/normal, minor, and major, the overall weighted kappa coefficient was 0.86 (95% CI 0.83, 0.89). There was variation among examiner pairs with unilateral (p = 0.002) and bilateral (p = 0.02) scoring, but not when defect status was categorized as none/normal, minor, and major (p = 0.59). There was agreement to within one point in 91% of cases when six examiner pairs scored levator ani defects on a seven-point scale. Examiner pairs discriminated injury similarly when defect status was categorized as normal/none, minor, or major.

Comparison of transperineal and transabdominal ultrasound in the assessment of voluntary pelvic floor muscle contractions and functional manoeuvres in continent and incontinent women.
Thompson JA, O'sullivan PB, Briffa NK, Neumann P
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 17;
Transperineal (TP) and transabdominal (TA) ultrasounds were used to assess bladder neck (TP) and bladder base (TA) movement during voluntary pelvic floor muscle (PFM) contraction and functional tasks. A sonographer assessed 60 asymptomatic (30 nulliparous, 30 parous) and 60 incontinent (30 stress, 30 urge) women with a mean age of 43 (SD = 7) years, BMI of 24 (SD = 4) kg m(2) and a median parity of 2 (range, 0-5), using both ultrasound methods. The mean of three measurements for bladder neck and bladder base (sagittal view) movement for each task was assessed for differences between the groups. There were no differences in bladder neck (p = 0.096) or bladder base (p = 0.112) movement between the four groups during voluntary PFM contraction but significant differences in bladder neck (p < 0.004) and a trend towards differences in bladder base (p = 0.068) movement during Valsalva and abdominal curl manoeuvre. During PFM contraction, there was a strong trend for the continent women to have greater bladder neck elevation (p = 0.051), but no difference in bladder base movement (p = 0.300), when compared to the incontinent women. The continent women demonstrated increased bladder neck descent during Valsalva and abdominal curl (p < 0.001) and bladder base descent during Valsalva (p = 0.021). The differences between the groups were more marked during functional activities, suggesting that comprehensive assessment of the PFM should include functional activities as well as voluntary PFM contractions. TP ultrasound was more reliable and takes measures from a bony landmark when compared to TA ultrasound, which lacks a reference point for measurements. TA ultrasound is less suitable for PFM measures during functional manoeuvres and comparisons between subjects. Few subjects were overweight so the results may not be valid in an obese population.

Impact of patient position on filling phase of urodynamics in women.
Shukla A, Johnson D, Bibby J
This is a randomised cross-over study designed to assess the effect of position on urodynamic investigation.
of women with urinary incontinence. Women were investigated in the supine and sitting positions. There was small, not statistically significant difference in total bladder volume. Total bladder volume was nearer to women's actual bladder capacity in the sitting position. There was no difference in bladder volume at first sensation or normal desire in both positions. There was a small, not statistically significant difference in bladder volume at strong desire and urgency. Women felt strong desire and urgency at lower bladder volumes in the sitting position. There was no clear patient preference for one position over the other.

Vaginal speculum.
Kravetz RE

Comparison of reduced volume versus four-liter electrolyte lavage solutions for colon cleansing.
Ker TS
In an attempt to improve patient tolerance for colon cleaning, a reduced-volume regimen with a 2-liter electrolyte lavage solution plus 20 mg of oral bisacodyl was compared with the standard 4-liter lavage for efficacy and safety. Three hundred patients were prospectively randomized into two study groups. One group of 150 patients was given four tablets of 5 mg bisacodyl at 12:00 PM the day before their colonoscopy, followed by 2 liters of electrolyte lavage by mouth at 6:00 PM the evening before their colonoscopy. Another group of 150 patients were given 4 liters of electrolyte lavage at 6:00 PM the evening before their colonoscopy. All patients were on a clear liquid diet the day before their colonoscopy. No enema was given in either groups. The bowel cleanliness was accessed by one colonoscopist. One registered nurse accessed the comfort of patient. In the 2-liter group, only one (0.6%) patient could not finish the laxative. Colon cleanliness was 80 per cent to 100 per cent, with an average of 95.9 per cent. In the 4-liter group, 11 (7.3%) patients could not finish the laxative preparation. Colon cleanliness was 78 per cent to 100 per cent, with an average of 95.3 per cent. The study that found the 2-liter electrolyte lavage solution with four tablets of bisacodyl can achieve equally good results in bowel preparation and favorable acceptance by patients compared with the 4-liter lavage.

PillCam colon capsule endoscopy compared with colonoscopy for colorectal tumor diagnosis: a prospective pilot study.
Schoofs N, Deviere J, Van Gossum A
BACKGROUND AND AIMS: Colonoscopy is regarded as the gold standard for colorectal cancer (CRC) screening. PillCam capsule endoscopy could be an alternative approach for screening large populations. We report a pilot evaluation in humans of the safety, feasibility, and performance of colon capsule endoscopy compared with colonoscopy. PATIENTS AND METHODS: Patients included in this single-center comparative study had presented for screening colonoscopy or there was suspicion of polyps or CRC. The capsule was ingested in the morning. After excretion, colonoscopy was performed. Significant findings were defined either as polyps > 6 mm, or three or more polyps of any size. Colonoscopy and colon capsule endoscopy (CCE) review were performed by independent physicians. RESULTS: 41 patients (26 women), mean age 56 years (range 26 - 75) were included, and all had complete colonoscopies. Four patients were excluded due to technical problems and one could not swallow the capsule; thus, 36 patients were considered in the analysis. In six the capsule had not been expelled at 10 hours and was retrieved endoscopically. CCE identified 19 of the 25 patients (76 %) with positive findings and 10 of the 13 (77 %) with significant lesions detected by colonoscopy. CCE detected seven lesions not seen at colonoscopy and two tumors were detected by both examinations. Overall sensitivity of CCE to detect significant lesions was 77 %, specificity was 70 %, positive predictive value was 59 %, and negative predictive value was 84 %. No adverse events occurred. CONCLUSION: CCE showed promising accuracy compared with colonoscopy. This new noninvasive technique deserves further evaluation as a potential CRC screening tool.

Evaluation of the PillCam Colon capsule in the detection of colonic pathology: results of the first multicenter, prospective, comparative study.

**BACKGROUND AND STUDY AIMS:** Population-based screening for colorectal cancer is widely recommended, with conventional colonoscopy considered to be the preferred diagnostic modality. However, compliance with screening colonoscopy is low and manpower capacity is limited. Capsule endoscopy might therefore represent a desirable alternative strategy. **PATIENTS AND METHODS:** The PillCam Colon capsule endoscope was prospectively tested in a multicenter setting. The indications for endoscopy in the enrolled patients included colorectal cancer screening (43 %), postpolypectomy surveillance (26 %), and lower gastrointestinal signs and symptoms (31 %). Study subjects underwent colon preparation and then ingested the capsule on the morning of the examination, with conventional colonoscopy being performed the same day. The PillCam Colon capsule findings were reviewed by three experts in capsule endoscopy who were blinded to the conventional colonoscopy findings. **RESULTS:** A total of 91 subjects were enrolled in three Israeli centers (55 men, 36 women; mean age 57), and the results were evaluable in 84 cases. The capsule was excreted within 10 hours in 74 % of the patients and reached the rectosigmoid colon in the other 16 %. Of the 84 evaluable patients, 20 (24 %) had significant findings, defined as at least one polyp of 6 mm or more in size or three or more polyps of any size: 14/20 (70 %) were identified with the capsule and 16/20 (80 %) were identified by conventional colonoscopy. Polyps of any size were found in 45 patients, 34/45 (76 %) found by the capsule and 36/45 (80 %) by conventional colonoscopy. In comparison with conventional colonoscopy, false-positive findings on PillCam Colon capsule examination were recorded in 15/45 cases (33 %). There were no adverse events related to the capsule endoscopy. **CONCLUSIONS:** PillCam Colon capsule endoscopy appears to be a promising new modality for colonic evaluation. Further improvements in the procedure will probably increase capsule examination completion and polyp detection rates. Additional studies are needed to evaluate the accuracy of PillCam Colon endoscopy in other patient populations with different prevalence levels of colonic disease.

**Clinical Utilization of Digital Rectal Examination and Fecal Occult Blood Testing Upon Hospital Admission.**

Scales CD Jr, Fein S, Muir AJ, Rockey DC

**GOALS:** The objective of our investigation was to examine the clinical utilization of digital rectal examination (DRE) and fecal occult blood testing (FOBT) at hospital admission. **BACKGROUND:** DRE at the time of hospital admission is frequently accompanied by FOBT. However, the utility of DRE with FOBT in this setting is unknown. **STUDY:** The study cohort comprised consecutive admissions to an internal medicine service over a 3-month period. Patient characteristics were compared for subjects by DRE performance and FOBT result. Follow-up endoscopic procedures within 1 year of admission were recorded. **RESULTS:** Complete data were available for 806 of 832 patients (96.9%). Three hundred forty eight patients underwent DRE on admission (43.2%). Patients undergoing DRE/FOBT were older (mean age 60.4 +/- 18.4 y vs. 55.0 +/- 19.6 y, P<0.001). Patients with gastrointestinal (GI) bleeding symptoms (relative risk 11.2, 95% confidence interval 5.47-23.0) or a past history of GI bleeding (relative risk 2.98, 95% confidence interval 1.93-4.58) were more likely to undergo DRE/FOBT. Among 130 (37.4%) patients with a positive FOBT, 72 (51.6%) had no history of GI bleeding symptoms; these patients were substantially less likely to undergo follow-up examination(s) than patients with a positive FOBT and a history of GI bleeding symptoms (30.6% vs. 82.8%, P<0.001). **CONCLUSIONS:** In this cohort, patients with a past history of GI disease or symptoms were more likely to undergo FOBT. Follow-up evaluation of positive FOBT in the absence of GI bleeding symptoms was very low. Low utilization and follow-up rates may limit the utility of admission DRE with FOBT for cancer screening.

**When to stop screening for colorectal cancer.**

Inadomi JM

**Will screening colonoscopy disappear and transform gastroenterology practice? Threats to clinical practice and recommendations to reduce their impact: report of a consensus conference conducted by the AGA Institute Future Trends Committee.**

Regueiro CR

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The AGA Institute Future Trends Committee (FTC) developed this report based on a consensus conference convened on April 1-2, 2006, in Washington, DC. The report was prepared for the FTC by Carol Regueiro, MD, a medical writer under contract to the AGA Institute, and Michael Stolar, PhD, staff liaison to the FTC. It was approved by the FTC on July 12, 2006, and accepted by the AGA Institute Governing Board on July 22, 2006. This report reflects the panel's assessment of information available at the time of the conference. Readers should view this report in the context of data that will continue to accumulate and facts that may change after its creation.

Diagnostic colonoscopy: the end is coming.
Bar-Meir S, Wallace MB

4 – PROLAPSES 2006 10

Local anesthesia with sedation for vaginal reconstructive surgery.
Buchbaum GM, Albushies DT, Schoenecker E, Duecy EE, Glantz JC
To evaluate local anesthesia with sedation for vaginal reconstructive surgery. All cases of vaginal surgery performed by the primary author for correction of pelvic organ prolapse with and without urinary incontinence between February 2000 and October 2004 were identified. From the medical record, data on age, duration of surgery, amount of local anesthetic used, estimated blood loss, hospital stay, urinary retention, and need for conversion to general anesthesia were recorded. Among 127 potential candidates, 98 (77.2%) opted for local with sedation. These cases included 18 anterior colporrhaphies, 47 posterior colporrhaphies with perineoplasties, 9 enterocele repairs, 32 total colpocleises, and 9 LeFort procedures. Tension-free vaginal tape (TVT) were concomitantly placed in 37 of the cases; 121 TVT-only cases done under local were not included. No cases were converted to general anesthesia. Surgical time ranged from 20 to 195 min (mean 99 min). Most patients were discharged within 24 h of surgery. Traditionally, local anesthesia with sedation has been reserved for superficial vaginal procedures. However, it can be successfully employed for more invasive vaginal reconstructive surgeries. Duration of surgery and patient acceptance have not been limiting factors. The advantages of local anesthesia include minimal interference with homeostasis and rapid recovery with patients often bypassing the recovery unit.

Re: recurrent pelvic floor defects after abdominal sacral colpopexy.
Deffieux X

External Pelvic Rectal Suspension (the Express Procedure) for Internal Rectal Prolapse, with or without Concomitant Rectocele Repair: A Video Demonstration.
Dench JE, Scott SM, Lunniss PJ, Dvorkin LS, Williams NS
Dis Colon Rectum. 2006 Oct 20;.
and the stem of each T-strip is sutured to the suprapubic periosteum, suspending the rectum. Concomitant rectocele is repaired using a Permacol® mark patch in the rectovaginal plane. RESULTS: Short-term results for the "Express" are encouraging with improvement in evacuatory and prolapse symptoms and concomitant anatomic improvement at defecography. CONCLUSIONS: This procedure promises to be an effective technique for managing patients with refractory evacuatory dysfunction secondary to internal rectal prolapse, with or without rectocele.

Urethral prolapse after durasphere injection.
Ghoniem GM, Khater U
Urethral prolapse is an uncommon condition among adult patients. We report a case of adult female patient with urethral prolapse after Durasphere injection. The patient was successfully treated with excision of the prolapsed urethra and Durasphere mass, and fibrin glue injection to support the remaining part of urethra.

Anterior vaginal wall prolapse and voiding dysfunction in urogynecology patients.
Schimpf MO, O’ Sullivan DM, Lasala CA, Tulikangas PK
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 10.;
We investigated whether women with and without anterior vaginal wall prolapse have voiding differences. Women (n = 109) who presented to a urogynecology practice were categorized into two groups based on anterior vaginal wall prolapse: stages 0 and 1 and stages 2, 3, and 4. Women with prolapse were older than the women without prolapse but the groups were otherwise similar demographically. There was a higher rate of activity-related urine loss and use of wetness protection amongst women without prolapse. There was no significant difference for urgency symptoms or urge incontinence. Urodynamic testing found no significant differences for maximal flow rate or maximal urethral closing pressures. Postvoid residual volume and detrusor overactivity were not different but approached significance. Anterior vaginal wall prolapse of stage 2 or greater was not associated with urge incontinence or voiding function in this population. Women without prolapse were more likely to report stress incontinence.

Colpocleisis: a review.
FitzGerald MP, Richter HE, Siddique S, Thompson P, Zyczynski H
OBJECTIVE: To summarize published data about colpocleisis and to highlight areas about which data are lacking. DATA SOURCES: We conducted a literature search on Medline using Ovid and PubMed, from 1966 to January 2004, using search terms "colpocleisis", "colpectomy", "vaginectomy", "pelvic organ prolapse (POP) and surgery", and "vaginal vault prolapse and surgery" and included articles with English-language abstracts. We examined reference lists of published articles to identify other articles not found on the electronic search. METHODS OF STUDY SELECTION: We examined all studies identified in our search that provided any outcome data on colpocleisis. Because of the heterogeneity of outcome measures and follow-up intervals in case series, we did not apply meta-analytic techniques to the data. RESULTS: Colpocleisis for POP is apparently successful in nearly 100% of patients in recent series. The rate of reoperation for stress incontinence or POP after colpocleisis is unknown. Concomitant elective hysterectomy is associated with increased blood loss and length of hospital stay, without known improvement in outcomes. Few studies systematically assess pelvic symptoms. The role of preoperative urodynamic testing to direct optimal management of urinary incontinence and retention remains to be established in this setting. CONCLUSIONS: Colpocleisis is an effective procedure for treatment of advanced POP in patients who no longer desire preservation of coital function. Complications are relatively common in this group of elderly patients. Prospective trials are needed to understand the impact of colpocleisis on functional outcomes and patient satisfaction.

Pelvic prolapse and urinary incontinence in nulliparous college women in relation to paratrooper training.
Larsen WI, Yavorek T
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 12.;
The objective of this study was to determine whether paratrooper training is associated with pelvic support.

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defects or urinary incontinence. Nulliparous women at The United States Military Academy were examined using the Pelvic Organ Prolapse Quantification System and completed a questionnaire regarding incontinence and exercise prior to undergoing summer military training. The exam and questionnaire were repeated following training. One hundred sixteen women completed the study (80.6%), 37 of whom had attended paratrooper training. Women who attended paratrooper training were significantly more likely to have stage II prolapse (RR = 2.72, 1.37 < RR < 5.40; p = 0.003). Additionally, women who attended paratrooper training were significantly more likely to have worsening in their pelvic support regardless of initial prolapse stage (RR = 1.57, 1.12 < RR < 2.20; p = 0.01). Twenty-four women complained of urinary incontinence; however, this was not associated with paratrooper training. The forces transmitted to the female pelvis during paratrooper training are significant and cause pelvic support defects.

Pelvic organ prolapse and urinary incontinence in nulliparous women at the United States Military Academy.
Larsen WI, Yavorek TA
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 physical 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.

Laparoscopic ventral recto(colpo)pexy for rectal prolapse: surgical technique and outcome for 109 patients.
D'Hoore A, Penninckx F
Surg Endosc. 2006 Oct 9;.
The authors propose a new laparoscopic technique for correction of rectal prolapse. The unique feature of this technique is that it avoids any posterolateral dissection of the rectum. The mesh is sutured to the anterior aspect of the rectum to inhibit intussusception. The technique was applied in 109 consecutive patients to correct total rectal prolapse. Conversion was needed for four patients. No postoperative mortality or major morbidity occurred. Minor morbidity was noted for 7% of the patients, and a recurrence rate of 3.66% was observed. Because this technique limited the dissection and the subsequent risk of autonomic nerve damage, a cure comparable with that resulting from classical mesh rectopexy can be anticipated.

Inflammatory Polyps: A Cause of Late Bleeding in Stapled Hemorrhoidectomy.
Fondran JC, Porter JA, Slezak FA
Dis Colon Rectum. 2006 Nov 3;.

Tejirian T, Abbas MA
Dis Colon Rectum. 2006 Nov 3;.
Rubber band ligation is a common option used to treat symptomatic internal hemorrhoids. Severe complications such as pelvic sepsis are a rare occurrence. We report a case of endocarditis leading to septic pulmonary and renal emboli following single-quadrant rubber band ligation. The patient had a known ventricular septal defect and developed low back pain and fever after ligation of a right anterior internal hemorrhoid. He was found to have septic pulmonary emboli, a renal wedge septic infarct, and a large vegetation on his membranous ventricular septal defect requiring operative intervention. Before this report, rubber band ligation has not been associated with endocarditis. According to several guidelines, this patient did not require antibiotic prophylaxis. It is unclear whether prophylaxis could have prevented this complication. Surgeons utilizing rubber band ligation need to be familiar with all potential complications.
Detrusor quantitative morphometry in obstructed males and controls.
Collado A, Batista E, Gelabert-Mas A, Corominas JM, Arano P, Villavicencio H
PURPOSE: We studied the usefulness of computer assisted morphometry for measuring detrusor muscle cell diameter and the connective tissue-to-smooth muscle ratio in patients with bladder outlet obstruction, acute urinary retention and a nonobstructed control group. MATERIALS AND METHODS: A prospective study was done in patients with bladder outlet obstruction undergoing transurethral prostate resection. Patients were divided into 33 with obstruction and 14 in acute urinary retention. A total of 15 males without obstruction undergoing transurethral prostate resection for bladder tumor formed the control group. Detrusor specimens were obtained during transurethral prostate resection. Detrusor muscle cell diameter was measured using light microscopy and a semiautomatic image analysis system. The connective tissue-to-smooth muscle ratio was automatically determined with computer assisted image analysis. Symptoms and urodynamic assessment were performed preoperatively and 6 months postoperatively. RESULTS: A total of 62 patients were included. The obstruction and acute urinary retention groups had a statistically higher detrusor muscle cell diameter and more fibrosis than the control group. Patients in acute urinary retention had more intrafascicular fibrosis (higher connective tissue-to-smooth muscle ratio at 40x magnification) than patients with obstruction. There were no differences in detrusor muscle cell diameter or interfascicular fibrosis (connective tissue-to-smooth muscle ratio at 10x magnification) between the obstruction and acute urinary retention groups. Detrusor muscle cell diameter correlated with symptom duration and functional recovery after transurethral prostate resection. Detrusor fibrosis correlated with preoperative detrusor pressure at maximum flow and postoperative compliance. Patients in acute urinary retention had fewer symptoms and higher residual volume. Other urodynamic parameters and their improvement after surgery were similar in the acute urinary retention and obstruction groups. CONCLUSIONS: Morphometric differences in detrusor muscle cell diameter and the connective tissue-to-smooth muscle ratio were observed between controls and patients with obstruction. There is an increase in detrusor muscle cell diameter and fibrosis in bladder outlet obstruction and more intense intrafascicular collagen deposition in patients in acute urinary retention.

Comparison of diagnostic criteria for female bladder outlet obstruction.
Akikwala TV, Fleischman N, Nitti VW
PURPOSE: There is no universally accepted definition of bladder outlet obstruction in women. We compared 5 contemporary urodynamic definitions and determined how well they correlated with each other and with clinical suspicion of bladder outlet obstruction. MATERIALS AND METHODS: A total of 154 women who underwent videourodynamics were prospectively evaluated. Clinical obstruction was suspected when history, physical examination, symptoms and basic testing before urodynamics raised the suspicion. Women were classified as having obstruction based on 5 contemporary definitions, including 3 pressure flow cutoff point criteria, videourodynamic criteria and the Blaivas-Groutz nomogram. The McNemar Test was used to compare each definition to the others and to suspicion of clinical obstruction. RESULTS: Of the women 91 were evaluable, including 26 (29%) with obstruction by videourodynamic criteria, 28 (31%) with obstruction by 1998 cut point criteria, 18 (20%) with obstruction by 2000 cut point criteria, 13 (14%) with obstruction by 2004 cut point criteria and 38 (42%) with obstruction by the Blaivas-Groutz nomogram. Videourodynamic and 1998 cut point criteria were not significantly different from each other (78.9% concordance) and each agreed with the clinically obstructed category in the comparison. Compared to the other criteria, the Blaivas-Groutz nomogram overestimated obstruction, while 2004 cut point criteria tended to underestimate it. CONCLUSIONS: Each urodynamic definition of female bladder outlet obstruction has merit. Videourodynamic criteria and 1998 cut point criteria have the highest concordance. The Blaivas-Groutz nomogram overestimates obstruction compared to the other criteria. Therefore, it should not be used as the sole or standard definition of obstruction in women.

Transvaginal urethrolysis for obstruction after antiincontinence surgery.
Our objective was to determine our success in relieving bladder outlet obstruction (BOO) with a transvaginal urethrolysis (TVU). This was a chart review that included 55 patients who underwent 61 TVU procedures between 2001 and 2005. Twenty-three patients had at least one prior TVU. Outcomes evaluated included obstructive symptoms, need for catheterization, postvoid residual (PVR), irritative symptoms, and stress urinary incontinence (SUI). Of the 46 patients with obstructive voiding preoperatively, 87% were cured. Of the 47 patients with irritative symptoms, 45% were cured, 34% improved, and 21% were left unchanged. SUI, generally mild, was noted postoperatively in 16% patients. Similar success was seen among patients with prior procedures. Aggressive TVU is very successful in relieving urinary retention and improving or curing overactive bladder symptomatology due to iatrogenic obstruction, even when a prior urethrolysis had been unsuccessful. SUI is an infrequent complication.

Safety, Tolerability, and Efficacy of Tegaserod over 13 Months in Patients with Chronic Constipation.

OBJECTIVE: To assess the long-term safety and tolerability of tegaserod in patients with chronic constipation (CC). METHODS: This 13-month, uncontrolled extension study enrolled CC patients who completed a 12-wk randomized, double-blind, placebo-controlled core study. Patients receiving tegaserod 6 or 2 mg b.i.d. during the core study continued on the same dose; those receiving placebo were switched to tegaserod 6 mg b.i.d (placebo-to-tegaserod). Safety and tolerability were assessed by monitoring adverse events (AEs), laboratory parameters, vital signs, and electrocardiograms. Symptom evaluations included patient satisfaction with bowel habit and bothersomeness of constipation, abdominal distension/bloating, and abdominal discomfort/pain. RESULTS: A total of 842 patients entered the extension study; 451 (54%) completed. AEs typically occurred within the first month of tegaserod treatment. Long-term treatment neither increased AE incidence nor revealed new safety risks. Headache (11.3%, 14.5%, and 16.1% in the tegaserod 6 mg b.i.d., 2 mg b.i.d., and placebo-to-tegaserod groups, respectively) and abdominal pain (8.8%, 8.8%, 10.9%) were the most common AEs. Diarrhea, the most common drug-related AE (4.9%, 2.5%, 8.0%), rarely led to discontinuation (0.7%, 0.0%, 2.2%). Diarrhea was transient, resolved without treatment interruption or rescue medication, and had no clinically significant consequences. Of 27 serious AEs, none were considered treatment related. No deaths or reports of ischemic colitis occurred in tegaserod-treated patients. No clinically relevant changes occurred in other safety parameters. Safety findings were similar in patients switched from placebo to tegaserod and those maintained on tegaserod. CONCLUSIONS: Tegaserod has a favorable safety profile and is well tolerated during continuous long-term treatment in patients with CC.

Epidemiology of childhood constipation: a systematic review.

OBJECTIVE: A systematic review of the published literature was performed to assess the prevalence, incidence, natural history, and comorbid conditions of functional constipation in children. METHODS: Articles were identified through electronic searches in Medline, Embase, Cochrane Central Library, Cinhal and PsychInfo databases. Study selection criteria included: (1) epidemiology studies of general population, (2) on the prevalence of constipation without obvious organic etiology, (3) in children from 0 to 18 yr old, and (4) published in English and full manuscript form. RESULTS: Eighteen studies met our inclusion criteria. The prevalence of childhood constipation in the general population ranged from 0.7% to 29.6% (median 8.9; inter quartile range 5.3-17.4). The prevalence of constipation defined as defecation frequency of <3/wk varied from 0.7% to 29.6% (median 10.4; inter quartile range 1.3-21.3). Identified studies originated from North America (N = 4), South America (N = 2), Europe (N = 9), the Middle-East (N = 1), and Asia (N = 2). Variance of gender specific prevalence was reported in seven studies and five of seven studies reported no significant difference between boys and girls. The age group in which constipation is most common could not be assessed with certainty. Socioeconomic factors were not found to be associated with constipation. CONCLUSION: Childhood constipation is a common problem worldwide. Most studies report similar prevalence rates for boys and girls. Large epidemiologic studies with the use of generally accepted
diagnostic criteria are needed to define the precise prevalence of constipation.

**Experience with type a botulinum toxin for treatment of outlet-type constipation.**
Maria G, Cadeddu F, Brandara F, Marniga G, Brisinda G

**The pathogenesis of idiopathic megacolon.**
Meier-Ruge WA, Muller-Lobeck H, Stoss F, Bruder E

**BACKGROUND:** Even today, the pathogenesis of idiopathic megacolon is still a subject of controversy. Anomalies of the gastrointestinal autonomous nervous system or of the smooth muscle of the muscularis propria are being considered. METHODS: Sixty-three idiopathic megacolon resections between 1997 and June 2004 were investigated. The native specimens were coiled caudo-cranially and cryostat-cut. Connective tissue was stained with picric acid/Sirius red after Delauney fixation. Immunohistochemistry was performed for collagen types I, II, III and IV, as well as smooth muscle actin, vimentin, desmin fibronectin and CD117 for interstitial cells of Cajal. The enteric nervous system was examined by enzyme histochemistry for acetylcholine-esterase, lactate dehydrogenase, succinic dehydrogenase and nitroxide synthase. RESULTS: Histologically, idiopathic megacolon was characterized by a total atrophy of the collagenous tendinous connective tissue membrane of the myenteric plexus and the tendinous collagen fibre net of the muscularis propria. Immunohistochemically, mainly collagen type III was missing in the muscularis propria. Interestingly, the incidence of idiopathic megacolon in those of the female sex was seven times more frequent than in the male sex. The myenteric plexus was normal in the majority of patients. Interstitial cells of Cajal, collagen II and IV, as well as smooth muscle actin, desmin and fibronectin showed no consistent alteration.

**CONCLUSION:** A normally structured tendinous fibre net of muscularis propria is an essential prerequisite for effective gut peristalsis. Atrophy of the tendinous fibre net abolishes peristalsis and allows for unlimited distension of the colon. A diagnosis of idiopathic megacolon can reliably be made on a collagen stain. The normal findings of myenteric plexus support the hypothesis that a primary metabolic defect of muscularis propria may be the underlying cause of idiopathic megacolon.

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**Continence pads: have we got it right?**
Uchil D, Thakar R, Sultan AH, Seymour J, Addison R

Women listed in the Croydon Community Continence database were contacted with a self-assessment questionnaire regarding continence pad usage and quality of life. Completed questionnaires were received from 763 of 1509 (51%) participants. Pads were used for bladder dysfunction (88.1%) and bowel dysfunction (44%). The majority (82.5%) had concurrent medical disorders and problems with mobility with 77.5% being on one or more types of medication. Nearly 39% of women claimed that they would be happy to continue pad use indefinitely and only 28% expressed interest in seeking further help. Compared to bowel dysfunction, bladder dysfunction appeared to have a greater impact on women's quality of life (P < 0.001). Containment products make a substantial contribution in improving the quality of lives of women with bowel and bladder dysfunction. The financial burden of containment products has a major impact on the health budget and therefore, comprehensive clinical evaluation should be mandatory before relegating women to pads as a final resort.

**Fecal incontinence: a review of prevalence and obstetric risk factors.**
Int Urogynecol J Pelvic Floor Dysfunct. 2006 May;17(3):253-60. Epub 2005 Jun 23.

**Obstetric anal sphincter rupture in older primiparous women: a case-control study.**
Dahl C, Kjolhede P

**OBJECTIVE:** To determine if maternal age (35 years of age or older) in primiparous women is a risk factor

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for the development of obstetric anal sphincter rupture (OASR) and to identify obstetric factors associated with it. MATERIAL AND METHODS: This is a retrospective case-control study. The study population was made up of the 5,345 primiparous women aged 24-45 years who delivered vaginally with singleton live-born neonates during 1990-99 at the Department of Obstetrics and Gynecology, Linkoping University Hospital, Sweden. As cases the 327 primiparous women aged 35-45 years at delivery were selected. For each case two primiparous controls ten years younger were selected, matched for gestational age and year of delivery, in all 654 controls. Maternal, obstetrical, and neonatal data were obtained from the delivery records. Obstetric factors for the development of OASR were assessed with multivariate logistic regression analysis. RESULTS: No significant association was found between the primiparous age category and OASR. Vacuum extraction, forceps delivery, and the head circumference of the neonate were found to be independent risk factors for OASR, while the use of mediolateral episiotomy or epidural analgesia were independent protective factors for developing OASR. CONCLUSIONS: Primiparous women, 35 years of age or older, do not seem to have a greater risk of OASR than younger primiparous women. Risk factors for OASR are instrumental vaginal delivery and the size of the neonate. Mediolateral episiotomy and epidural analgesia seem to reduce the risk for OASR.

The prevalence of treatment seeking for incontinence is low across all ethnic groups, even when women have clinically severe symptoms and access to a health provider.

Perioperative complications and adverse events of the MONARC transobturator tape, compared with the tension-free vaginal tape. Barber MD, Gustilo-Ashby AM, Chen CC, Kaplan P, Paraiso MF, Walters MD Am J Obstet Gynecol. 2006 Oct 4;.
OBJECTIVE: The objective of the study was to compare the incidence of perioperative complications of the MONARC transobturator tape with the tension-free vaginal tape in women undergoing surgical treatment for stress urinary incontinence. STUDY DESIGN: A retrospective review of all patients undergoing either a transobturator tape or tension-free vaginal tape between January 2003 and August 2005 was performed. The incidence of intraoperative and postoperative (6 weeks or less) complications was compared between groups. RESULTS: Two hundred five women underwent a transobturator tape and 213 women underwent a tension-free vaginal tape during the study period. Tension-free vaginal tape resulted in a significantly higher rate of bladder perforation than did transobturator tape (11 of 213 [5%] versus 0 of 205 [0%], P < .001). Postoperatively, subjects who received tension-free vaginal tape were significantly more likely to require urethrolysis for voiding dysfunction or urinary urgency (adjusted odds ratio 3.2 [95% confidence interval 1.2 to 10.1], P = .026) and more likely to use anticholinergic medications (adjusted odds ratio 2.1 [95% confidence interval 1.02 to 4.70], P = .046) than those who received a transobturator tape. CONCLUSION: Transobturator tape is associated with a lower rate of bladder injury, a decreased incidence of postoperative anticholinergic medication use, and fewer urethrolyses for postoperative voiding dysfunction or urinary urgency than tension-free vaginal tape.

[Periurethral injections of dextranomer/hyaluronic acid copolymer in the treatment of female stress urinary incontinence: description of the technique and bibliographic review]

TVT-Obturator: Short-Term Data on an Operative Procedure for the Cure of Female Stress Urinary Incontinence Performed on 300 Patients.
Neuman M
Eur Urol. 2006 Oct 18;.
Use of the TVT-obturator, a novel midurethral sling, seems to reduce the incidence of some of the operative complications associated with the TVT, primarily bladder penetration and postoperative outlet obstruction. The early therapeutic results and the cost-effectiveness of the novel TVT-obturator appear similar to those reported for common TVT surgery. However, long-term comparative data collection will be required to enable drawing solid conclusions regarding the appropriate position of this operative technique within the spectrum of anti-incontinence operations.

Population-Based Survey of Urinary Incontinence, Overactive Bladder, and Other Lower Urinary Tract Symptoms in Five Countries: Results of the EPIC Study.
Eur Urol. 2006 Oct 2;.
This is the first study to evaluate these symptoms simultaneously using the 2002 ICS definitions. The results indicate that these symptoms are highly prevalent in the countries surveyed.

One year follow-up on the SPARC sling system for the treatment of female urodynamic stress incontinence.
Primus G
This prospective study demonstrates that the SPARC suprapubic sling is a safe and effective treatment for female stress urinary incontinence. Both objective and subjective measures of success were achieved, with low complication rates. Quality of life and urodynamic parameters were improved. The SPARC method provides safe and highly effective treatment for female stress urinary incontinence at one year.

Bladder diary volume per void measurements in detrusor overactivity.
Amundsen CL, Parsons M, Cardozo L, Vella M, Webster GD, Coats AC
Adjusting for the 24-hour volume relationship increased the separation of patients with detrusor overactivity volume per void measurements from the reference population. Adjusting volume per void percentiles for the 24-hour volume relationship decreased the incidence of false-negative volume per void percentiles above the 10th percentile in patients with detrusor overactivity and false-positive volume per void percentiles below the 10th percentile in asymptomatic volunteers.

PURPOSE: We evaluate the feasibility and potential advantages of ProACT system implantation using transrectal ultrasound rather than fluoroscopy for guidance. MATERIALS AND METHODS: The transrectal ultrasound guided procedure was done between June and October 2005 in 7 patients with a mean age of 68.4 years (range 53 to 76) with mild to severe stress urinary incontinence after laparoscopic transperitoneal radical prostatectomy. RESULTS: The ProACT system was successfully implanted in all cases without perioperative complications. Time needed to complete the overall procedure was 15 to 30 minutes. All transrectal ultrasound studies performed during the mean followup of 4.2 months (range 2 to 6) confirmed the exact location of the devices. CONCLUSIONS: ProACT system implantation is feasible using transrectal ultrasound for guidance. Transrectal ultrasound enables excellent imaging of all anatomical landmarks during the entire procedure and it seems to provide considerable advantages over fluoroscopy in terms of safety and accuracy.

Daily intravesical instillation of 1 mg nociceptin/orphanin FQ for the control of neurogenic detrusor

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overactivity: a multicenter, placebo controlled, randomized exploratory study.
This study showed that intravesical nociceptin/orphanin FQ but not placebo inhibited the micturition reflex in patients with neurogenic detrusor overactivity incontinence, and demonstrated the clinical efficacy of nociceptin/orphanin FQ during 10 days of treatment. These findings support the use of nociceptin/orphanin FQ peptide receptor agonists as an innovative therapeutic approach for controlling detrusor overactivity incontinence.

Engendering student empathy for disabled clients with urinary incontinence through experiential learning.
Karlowicz KA, Palmer KL
As part of a rehabilitation clinical course for senior baccalaureate nursing students, a disability-incontinence experiential learning activity is required. The assignment is intended to familiarize students with some of the challenges encountered by a client with mobility problems, including continence management issues using disposable undergarments. Wearing the undergarments dry and wet while being confined to a wheelchair provides insight and promotes empathy for patients with bladder control problems.

Urinary incontinence after hysterectomy--three-year observational study.
Gustafsson C, Ekstrom A, Brismar S, Altman D
In contrast to the results of several studies, the results of our 3-year prospective study showed that total hysterectomy, independent of route, was not associated with an increase in urge or stress urinary incontinence symptoms.

Comparison of 20-minute pad test versus 1-hour pad test in women with stress urinary incontinence.
Wu WY, Sheu BC, Lin HH
OBJECTIVES: To compare the sensitivity of the 20-minute pad test with that of the 1-hour pad test in women with stress urinary incontinence. METHODS: From January to March 2005, 100 women with stress urinary incontinence who underwent a urodynamic study were enrolled. Each patient underwent a 1-hour pad test before the urodynamic study. The infusion of 250 mL water into the bladder in the 20-minute pad test was performed after the urodynamic study. The results of the two tests in each patient were analyzed and compared using Pearson's chi-square or the Wilcoxon signed-rank test. RESULTS: The mean age of the 100 women was 53.3 +/- 12.1 years, with a mean parity of 2.9 +/- 1.5. In the 100 patients, the 20-minute pad test had better sensitivity than the 1-hour pad test (46% versus 34%, P <0.001). In the quantitative study, the two pad tests had fair agreement, and the pad weight results for the 1-hour pad test had significantly larger amounts than those for the 20-minute pad test (P = 0.002). CONCLUSIONS: The 20-minute pad test had better sensitivity than the 1-hour pad test in women with stress urinary incontinence.

Trans obturator tape sling for female stress incontinence with polypropylene tape and outside-in procedure: prospective study with 1 year of minimal follow-up and review of trans obturator tape sling.
The results of the present study have confirmed the optimal results in stress incontinence previously reported in short-term studies. These results suggest that the trans obturator tape procedure is a valuable alternative to the transvaginal tape procedure, with a low rate of complications.

Hysterectomy Is Associated with Stress Incontinence in Women Who Previously Had a Transcervical Endometrial Resection.
Krogh RA, Neumann GA, Lauszus FF, Gutterm E, Rasmussen KL
Hysterectomy is significantly associated with stress urinary incontinence in women, who previously had a TCER.

Large thigh abscess after placement of synthetic transobturator sling.
Goldman HB
PURPOSE: To report a unique complication associated with transobturator slings. MATERIALS AND METHODS: The evaluation and treatment of a unique infectious complication of transobturator slings is reviewed. RESULTS: A large thigh abscess associated with a transobturator sling was diagnosed and treated. CONCLUSION: New techniques of sling placement may be associated with unique infectious complications. Slings passing through the obturator foramen and thigh can lead to a significant abscess within the adductor muscles of the thigh.

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
In this prospective observational study, we investigated the efficacy of Stoller afferent nerve stimulation (SANS) in subjects with overactive bladder who failed anticholinergic treatment. 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.

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. 2006 May;17(3):272-85. Epub 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.

Prevalence and correlates of stress urinary incontinence during pregnancy: a survey at UNICAMP Medical School, Sao Paulo, Brazil.
Scarpa KP, Herrmann V, Palma PC, Riccetto CL, Morais SS
The aim of this study was to evaluate the prevalence of stress urinary incontinence (SUI) in women in the third trimester of pregnancy. In total, 340 patients attending the Antenatal Clinic at the State University of Campinas (UNICAMP) were interviewed. Overall, 170 women (50%) presented SUI. Stress urinary incontinence did not correlate to either body mass index (BMI) or race. There was no correlation between parity and SUI, but when considering distinct types of effort, urine leakage on coughing (P = 0.0478) and laughing (P = 0.0046) were highly more frequent in multiparous women. One hundred eleven women had had only vaginal deliveries and 68 delivered by cesarean section. There was no difference between the two groups concerning incontinence, but multiparous women (> or = 4) who delivered exclusively vaginally demonstrated 2.0 times more chances to leak urine when compared to nulliparous women. This fact strongly suggests parity to be more relevant than delivery route as a risk factor to stress urinary incontinence. Nulliparous women presented with a high percentage (45.5%) of the symptom, emphasizing the elevated risk of SUI during first pregnancy.
Current and future trends in the management of overactive bladder.
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 24;.
Urinary incontinence is a common problem which increases in prevalence in association with advancing age and has a significant adverse effect upon well-being and quality of life. It is not the "benign" condition that many take it for. Overactive bladder (frequency-urgency syndrome) is the commonest bladder problem in late life, affecting up to 41% of over-75-year-old individuals, and the elderly experience more severe disease. This small series should provide the reader with a comprehensive overview of the current thinking in the assessment and management of patients with overactive bladder syndrome, explores the history of the condition and current approaches to its medical and surgical management and explores where management may change in more complex populations. The current state and future developments in pharmacological therapy are also outlined.

Anal incontinence: the role of medical management.
Demirci S, Gallas S, Bertot-Sassigneux P, Michot F, Denis P, Leroi AM
BACKGROUND AND AIMS: Consensus recommendations suggest that patients with anal incontinence (AI) should be managed by medical treatment when indicated. Our aims were to prospectively evaluate from two different populations of patients: (1) the proportion of incontinent patients referred to a specialized center who were candidates for first line medical treatment (study 1); (2) the results of medical treatment in incontinent patients (study 2). METHODS: In study 1, standardized management of AI based on an algorithmic decision tree was applied to 287 incontinent patients (209 women, ranging from 16 to 84 years old). In study 2, 36 other incontinent patients with transit disorders (28 women, ranging from 29 to 86 years old) seen consecutively, were treated by a medical treatment of their transit disorders. The result of the medical treatment was objectively and subjectively evaluated after 2 months. RESULTS: Study 1: medical treatment was indicated in 126 of 287 patients (43.9%) (62 for diarrhea and 64 for constipation) while biofeedback was indicated in 52 patients (18.1%) and surgery specific for AI in 99 patients (34.5%). Eighty percent of the patients who were proposed conservative medical treatment were referred by their gastroenterologist or their general practitioner. Study 2: the continence score decreased from a median of 12 to 6.5 (P<0.001). 61% of patients regarded themselves as cured or improved after medical treatment. CONCLUSION: Conservative treatment can be proposed as a first line treatment in more than 50% of patients with anal incontinence referred to a specialized center. Medical treatment for anal incontinence associated with transit disorders improves continence.

Intra-anal collagen injection for the treatment of faecal incontinence.
Stojkovic SG, Lim M, Burke D, Finan PJ, Sagar PM
Br J Surg. 2006 Oct 18;.
BACKGROUND:: Intra-anal injectable agents have been used to treat faecal incontinence. The aim of this study was to report the experience of a cohort of patients who underwent intra-anal injection of collagen and to determine which patients benefited from the technique. METHODS:: Data, including age, sex, incontinence score, classification of incontinence, baseline resting pressure and vector volume, were collected prospectively for 73 consecutive patients (59 women) undergoing intra-anal collagen injection. Patients were reviewed after treatment and incontinence scores documented. A proportion of patients also underwent repeat anorectal physiological testing 8 weeks after the procedure. RESULTS:: At a median follow-up of 12 months after the intra-anal injection, 63 per cent of patients had an improved incontinence score and 73 per cent reported an overall improvement in symptoms. Logistic regression showed that older age and idiopathic faecal incontinence were predictors of a successful outcome (P = 0.042 and P = 0.048 respectively). CONCLUSION:: Intra-anal collagen injection appears to have a role in the treatment of faecal incontinence. The majority of patients can expect both objective and subjective improvement. The best results are achieved in older patients and in those with idiopathic incontinence. Copyright (c) 2006 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd.

Sacral Nerve Stimulation in Fecal Incontinence: Are There Factors Associated with Success?
Gourcerol G, Gallas S, Michot F, Denis P, Leroi AM

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Patients with fecal incontinence from neurologic origins could be good candidates for sacral nerve stimulation.

**7 – PAIN 2006 10**

**Interleukin-6, histamine, and methylhistamine as diagnostic markers for interstitial cystitis.**
Lamale LM, Lutgendorf SK, Zimmerman MB, Kreder KJ
OBJECTIVES: To examine the specificity and sensitivity of the inflammatory markers histamine, methylhistamine, and interleukin-6 (IL-6) in the urine of patients with interstitial cystitis compared with that in healthy controls. METHODS: A total of 40 women with interstitial cystitis and 29 healthy controls collected 24-hour urine samples. During the 24 hours before urine collection, all participants refrained from consuming foods and medications that could contain bioactive amines. Methylhistamine and histamine were measured using radioimmunoassay kits and were normalized to urinary creatinine levels; IL-6 was measured using enzyme-linked immunosorbent assay. The data were analyzed by t tests, logistic regression analysis, and receiver operating characteristics. RESULTS: IL-6 and histamine were significantly greater in the patients with interstitial cystitis than in the controls (P = 0.0003 and P = 0.038, respectively). The methylhistamine levels were also greater in the patients with interstitial cystitis than in the controls, but the results did not reach significance (P = 0.063). Using a combination of IL-6 and methylhistamine/creatinine, cutoff points were established. Using these cutoff points, the sensitivity was 70.0%, specificity 72.4%, positive predictive value 77.8%, and negative predictive value 63.6%. CONCLUSIONS: All three markers--histamine, methylhistamine, and IL-6--were greater in the patients with interstitial cystitis than in the controls. A combination of methylhistamine and IL-6 could be used as a sensitive and specific marker for interstitial cystitis.

There is a low incidence of recurrent bacteriuria in painful bladder syndrome/interstitial cystitis patients followed longitudinally.
Stanford E, McMurphy C
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 12;.

**EMG biofeedback versus topical lidocaine gel: a randomized study for the treatment of women with vulvar vestibulitis.**
Danielsson I, Torstensson T, Brodda-Jansen G, Bohm-Starke N

**Relation between severity of dysmenorrhea and endometrioma.**
Chopin N, Ballester M, Borgese B, Fauconnier A, Foulot H, Malartic C, Chapron C

**Sleep-Related Autonomic Disturbances in Symptom Subgroups of Women with Irritable Bowel Syndrome.**
Robert JJ, Eisenbruch S, C Orr W
Dig Dis Sci. 2006 Nov 1;.
Sleep appears to unmask differences in autonomic activity that may distinguish IBS patients.

**Studying the Overlap Between IBS and GERD: A Systematic Review of the Literature.**
Nastaskin I, Mehdikhani E, Conklin J, Park S, Pimentel M
Dig Dis Sci. 2006 Nov 1;.
There is a strong overlap between GERD and IBS that exceeds the individual presence of each condition. In the absence of GERD, IBS is relatively uncommon.

**Efficacy of Probiotics and Nutrients in Functional Gastrointestinal Disorders: A Preliminary Clinical**
Trials for the nonsignificant improvements in GI symptoms could suggest that combination probiotics and nutrients may be beneficial in conditions such as FGID, no conclusive evidence was found in this pilot trial.

What's in a name--familial rectal pain syndrome becomes paroxysmal extreme pain disorder.
Fertleman CR, Ferrie CD

Physical activity and intestinal gas clearance in patients with bloating.
Villoria A, Serra J, Azpiroz F, Malagelada JR
Mild physical activity enhances intestinal gas clearance and reduces symptoms in patients complaining of abdominal bloating.

The effect of a nonabsorbed oral antibiotic (rifaximin) on the symptoms of the irritable bowel syndrome: a randomized trial.
Pimentel M, Park S, Mirocha J, Kane SV, Kong Y
Rifaximin improves IBS symptoms for up to 10 weeks after the discontinuation of therapy.

Summaries for patients. Can antibiotics improve the symptoms of the irritable bowel syndrome?

Spontaneous closure of vesicovaginal fistulas after bladder drainage alone: review of the evidence.
Bazi T
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Oct 12;.
A vesicovaginal fistula may occur as a surgical complication, the result of obstructed labor, or a late manifestation of radiotherapy. Surgical treatment includes many routes and techniques, with a success rate reaching 100%. The spontaneous closure of vesicovaginal fistulae after bladder drainage alone for varying periods has been reported by many. The factors favoring the success of this conservative method have not been well examined. In this paper, all articles referring to this modality were reviewed. The parameters studied included etiology, size, interval from the causative insult to drainage, and duration of drainage. The incidence of spontaneous closure of fistulate after bladder drainage alone ranged 0 and 100%. Among all assessed criteria, the interval to drainage seems to have the best correlation with success. This finding is most likely explained on the basis of the epithelialization of the fistulous tract with time, preventing spontaneous healing. In the view of the retrospective nature of the reviewed articles, the absence of a detailed classification system, and the heterogeneity of the treatment in question, no solid conclusion regarding management recommendations can be drawn.

Golub RW, Wise WE Jr, Kerner BA, Khanduja KS, Aguilar PS
Cryptoglandular fistula-in-ano is a common affliction that usually responds well to conventional surgical procedures such as fistulectomy, fistulotomy, and seton placement. These procedures, however, can be associated with varying degrees of fecal incontinence. Endorectal mucosal advancement flap has been advocated as an alternative procedure that avoids this problem. This study was undertaken to determine the risks and benefits associated with endorectal mucosal advancement flap in the treatment of complex fistula-
in-ano. One hundred sixty-four patients underwent 167 endorectal mucosal advancement flap procedures for complex cryptoglandular fistula-in-ano between January 1982 and December 1990. There were 126 men and 38 women whose mean age was 42.1 years (range 20 to 79 years). The majority of the patients (70%) had complex fistulas (transssphincteric, suprasphincteric, or extrasphincteric). Fifteen patients (9%) had an intersphincteric fistula. All patients were available for short-term follow-up (6 weeks). Postoperative morbidity was minimal and included urinary retention in 13 patients (7.8%) and bleeding in one patient. Healing time averaged 6 weeks. Long-term follow-up, ranging from 19 to 135 months, was carried out in 61 patients. There were two recurrences (3.28%). Nine patients (15%) complained of varying degrees of fecal incontinence. Six patients complained of incontinence to flatus and three patients complained of incontinence to liquid stool. No patient was incontinent of solid stool. Sixty patients (98%) rated their functional result as excellent or good. Endorectal mucosal advancement flap is a safe and effective technique for the treatment of complex cryptoglandular fistula-in-ano. It can be performed with minimal morbidity, no mortality, an acceptable recurrence rate, and little alteration in anorectal continence.

Efficacy of Anal Fistula Plug in Closure of Cryptoglandular Fistulas: Long-Term Follow-Up.
Champagne BJ, O’connor LM, Ferguson M, Orangio GR, Schertzer ME, Armstrong DN
Dis Colon Rectum. 2006 Nov 3;

Comparison of Outcomes in Z-Plasty and Delayed Healing by Secondary Intention of the Wound After Excision of the Sacral Pilonidal Sinus: Results of a Randomized, Clinical Trial.
Fazeli MS, Adel MG, Lebaschi AH
Dis Colon Rectum. 2006 Nov 3;

Fibrin Glue as an Adjunct to Flap Repair of Anal Fistulas: A Randomized, Controlled Study.
Ellis CN, Clark S
Dis Colon Rectum. 2006 Oct 19;

The Importance of Local Subcutaneous Fat Thickness in Pilonidal Disease.
Balik O, Balik AA, Polat KY, Aydinli B, Kantarci M, Aliagaoglu C, Akcay MN
Dis Colon Rectum. 2006 Oct 13;

9 – BEHAVIOUR Psychology, Sexology 2006 10

The clinical utility of maternal self-reported personal and familial psychiatric history in identifying women at risk for postpartum depression.
Dennis CL, Ross LE

Biomarkers of depression in cancer patients.

Inflammation and perturbation of the hypothalamic-pituitary-adrenal (HPA) axis function appears to play a putative role in the etiology of depression. Patients with metastatic cancer demonstrate elevated prevalence rates for depression. Depression is associated with increased plasma interleukin IL-6 concentrations in patients with cancer. These patients demonstrate a dysfunction of the HPA-axis, characterized by a decreased diurnal variation of cortisol. The high sensitivity and specificity of these parameters biomarkers of depression make IL-6 and cortisol VAR helpful tools in the diagnosis of depression in patients with cancer.

An evaluation of screening questions for childhood abuse in 2 community samples: implications for clinical practice.
Thombs BD, Bernstein DP, Ziegelstein RC, Scher CD, Forde DR, Walker EA, Stein MB
High incidence of new sexually transmitted infections in the year following a sexually transmitted infection: a case for rescreening.
Although single-dose therapy may adequately treat the infection, it often does not adequately treat the patient.

Does sexual function change after surgery for stress urinary incontinence and/or pelvic organ prolapse? A multicenter prospective study.
Rogers RG, Kammerer-Doak D, Darrow A, Murray K, Qualls C, Olsen A, Barber M
OBJECTIVE: The purpose of this study was to assess sexual function in women after surgery for stress urinary incontinence and/or pelvic organ prolapse (UI/POP) at 3 and 6 months with the Pelvic Organ Prolapse Urinary Incontinence Sexual Questionnaire (PISQ). STUDY DESIGN: Of 269 eligible women participating in a trial of prophylactic antibiotic use with suprapubic catheters, 102 (37.9%) agreed to participate in a sexual function study. Women underwent a variety of anti-incontinence and reconstructive surgeries. Sexual function and urinary incontinence were assessed preoperatively and at 3 and 6 months, postoperatively, with the PISQ and Incontinence Impact Questionnaires (IIQ-7). Paired t tests compared changes over time. Logistic regression compared worsening PISQ versus other variables. Generalized McNemar test compared individual questions preoperatively and postoperatively. Significance was set at P < .05. RESULTS: Mean age was 47.1 (23-85) years, and 64% of women were premenopausal. Seventy-five (74%) women completed questionnaires at 3 or 6 months. Sexual function scores improved after surgery as did IIQ-7 scores (PISQ 89 vs 95, P < .001; IIQ-7 = 52 vs 13, P < .001). The Behavioral Emotive domain scores did not change at 3 to 6 months compared with preoperative scores (P = .57), whereas the Physical domain improved (P < .001). Worsening PISQ scores were independent of age, type of surgery, hysterectomy, complications, or hormonal status (logistic regression, all P < .05). CONCLUSION: Sexual function scores in women improve after surgery for UI/POP as did improvement of incontinence at 3 to 6 months after surgery.

Sexual experience of partners after hysterectomy, comparing subtotal with total abdominal hysterectomy.
Lonnee-Hoffmann RA, Schei B, Eriksson NH
Background. There is a lack of knowledge about partners' sexual experience after hysterectomy. The aim of this study was to explore potential differences in the experience of sexual intercourse by the partner, related to the operation method (subtotal versus total abdominal hysterectomy). Method. Of all patients having undergone abdominal hysterectomy for benign indications at St Olav Hospital, Trondheim between February 2001 and March 2003, Norway, 120 patients (60 total, 60 subtotal abdominal hysterectomy) were identified. Each patient and partner received a postal questionnaire addressing sexuality in connection with the operation. Results. Of the 240 questionnaires, 111 were returned, a response rate of 46%. Among partners of women having undergone total hysterectomy, proportionally more noticed during sexual intercourse that the uterus had been removed (12%) compared to partners of women having undergone subtotal hysterectomy (4%); this was not significant and all of these partners experienced this as positive. Sexual satisfaction was improved or unchanged in most women and their partners, regardless of operation type. Partners who reported poor satisfaction before the operation were significantly more likely to report poor satisfaction after the operation. A high proportion of partners in both hysterectomy groups had not discussed sexuality in relation to the surgery either before or after the operation (subtotal: 44%; total: 24%; not significant). Conclusion. The majority of women and their partners reported no negative impact on sexual satisfaction after abdominal hysterectomy, regardless if subtotal or total. The only predictor of negative sexual experience of partners after hysterectomy was negative sexual experience before hysterectomy.

Now dear, I have a headache! Immediate improvement of cluster headaches after sexual activity.
Gotkine M, Steiner I, Biran I

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**Adverse effects of drug therapies on male and female sexual function.**
Stadler T, Bader M, Uckert S, Staehler M, Becker A, Stief CG
World J Urol. 2006 Nov 8;.
Sexual dysfunctions (SD) are adverse effects of common drug therapies that have rarely been considered in investigations so far. Possibly it is barely known that many widespread and frequently prescribed medications and drug therapies can have significant impact on vascular and nerval processes as well as on endocrinologic and psychoneuroendocrinologic systems and therefore can influence sexual functions. Impotence and disorders of the erectile function can mainly be caused by antidopaminergic mechanisms, whereas ejaculatory disorders and anorgasmia often can be explained by antiserotoninergic effects. Anticholinergic and adrenolytic agents can also cause a particular impairment of erectile functions. The following considerations will show that the detection and treatment of SD (also in women!) should be given much more attention since drug-induced SDs occur predominantly in indications where a SD itself can be a symptom of the disease.

**Female sexual dysfunction, voiding symptoms and depression: common findings in partners of men with erectile dysfunction.**
Shabsigh R, Anastasiades A, Cooper KL, Rutman MP
World J Urol. 2006 Nov 3;.
FSD disorders, urinary symptoms and depressive symptoms are common in partners of men with erectile dysfunction.

**Retarded ejaculation.**
Perelman MA, Rowland DL
World J Urol. 2006 Nov 3;.
Retarded ejaculation (RE) has a relatively low prevalence (<3%), yet this condition results in considerable distress, anxiety, and lack of sexual confidence for those suffering from it. Furthermore, men with partners often experience impairment of both the sexual and nonsexual aspects of their relationships, with such negative effects compounded when procreation is a consideration. The definition of RE is ambiguous, due to the variability and paucity of data regarding normal coital ejaculatory latency. RE is influenced by both biogenic and psychogenic components, which may vary over time both between and within individuals. While specific pathophysiology can often be identified, further elucidation of the biogenic components of this dysfunction will require greater understanding of the physiological mechanisms underlying ejaculation. Yet, the most useful strategies for understanding RE will integrate rather than isolate the various biogenic and psychogenic aspects of this dysfunction. Evidence based evaluation and treatment protocols for this disorder are lower than for other sexual dysfunctions, but reports suggest better treatment efficacy when the etiology is predominantly psychogenic. As with erectile dysfunction (ED) and premature ejaculation (PE), if safe and efficacious oral pharmaceuticals are eventually developed for this condition, the treatment algorithm is likely to undergo significant alteration. Even then, however, the most effective treatments are likely to result from a combination treatment that integrates sex coaching with pharmacotherapy.

**The male biological clock.**
Lambert SM, Masson P, Fisch H
World J Urol. 2006 Nov 3;.

**Potential future options in the pharmacotherapy of female sexual dysfunction.**
Uckert S, Mayer ME, Jonas U, Stief CG
World J Urol. 2006 Oct 18;.
Female sexual dysfunction (FSD) is considered a common medical problem estimated to affect millions of women in the westernized countries. FSD has been classified into four different categories including sexual arousal disorder (FSAD), sexual desire disorder (HSDD), orgasmic disorder and sexual pain disorder. The focus of this article is the potential role of pharmacological compounds currently under development, in the treatment of sexual arousal and orgasmic disorders in order to enhance the sexual response in adult
females. While a number of potential therapeutic options are available to date, not one of the pharmacological treatment regimens has been yet considered the Gold standard in the management of symptoms of FSD. This article reviews the rationale and potential benefits of using distinct drug formulations in the treatment of FSD.

10 – MISCELLANEOUS 2006 10

Metastasis in anal mucosa from bladder cancer.
Pascual I, Alvarez-Gallego M, Herreros MD, Garcia-Fernandez E

[Metastases from a rectal adenocarcinoma to the prepuce]
Anibarro Laca E, Perez-Irezabal Pindado JC, Ibanez Calle T, Llarena Ibarguren R
Arch Esp Urol. 2006 Sep;59(7):737-9.

The use of acellular dermal matrix for contaminated abdominal wall defects: wound status predicts success.
Schuster R, Singh J, Safadi BY, Wren SM

Unexpected Insights into Pelvic Function Following Phosphodiesterase Manipulation—What's Next for Urology?
McVary KT
Eur Urol. 2006 Sep 29;.

The outcomes of patients with positive margins after excision for intraepithelial Paget's disease of the vulva.
Black D, Tornos C, Soslows RA, Awtrey CS, Barakat RR, Chi DS
Gynecol Oncol. 2006 Oct 23;.
Microscopically positive margins following surgical excision of vulvar intraepithelial Paget's disease is a frequent finding, and disease recurrence is common regardless of surgical margin status. Long-term monitoring of patients is recommended, and repeat surgical excision is often necessary.

This month in gastroenterology.
Tack J, Carethers JM

Ischemic colitis.
Huguier M, Barrier A, Boelle PY, Houry S, Lacaine F
Serial endoscopic evaluations are the best indicator for surgery before appearance of tenderness, septic shock, full-thickness gangrene, and perforation. At discharge, anticoagulant or anti-arrhythmic therapy should be considered for patients who have cardiovascular disease.

Cancer risk in endoscopically unresectable colon polyps.
Alder AC, Hamilton EC, Anthony T, Sarosi GA Jr
The cancer risk in polyps deemed inappropriate for endoscopic resection was lower than previously reported. Neither polyp size nor histologic type appeared to be significantly associated with invasive cancer. Location of an endoscopically unresectable polyp distal to the splenic flexure confers an increased risk for occult malignancy.

Antibiotic therapy for Crohn's disease: a review.

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