FORUM 2006 02
Current and future challenges facing academic medicine.
Karram MM
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Feb 17;.

Interactive biomaterials: taking surgery to the next level.
Hiles M, Levitsky S
Int Surg. 2005 Jul-Aug;90(3 Suppl):S13-20.
Medicine has been advanced greatly by implantable biomaterials, but today's standard materials are not without problems. Infection, erosion, adhesions, persistent pain, and other complications suggest that something better is possible. Just as normal tissues self-renew, it is desirable to have an implant recapitulate original anatomy for both structure and function. Short of complete tissue regeneration, perhaps an implant material could transition from an inanimate bridge to a living tissue with strong similarity to the original host architecture-to optimize the biology and not simply the mechanics of tissue repair. Such remodelable or tissue-inductive materials exist today and are in use in a wide variety of surgical applications. Changing the idea that implants must be rigid, inert, and permanent to an understanding that implants can provide short-term mechanics and long-term repair by harnessing the host's healing abilities represents a paradigm shift that will ultimately benefit patients and the practice of surgery.

Are meshes with lightweight construction strong enough?
Holste JL
Int Surg. 2005 Jul-Aug;90(3 Suppl):S10-2.
The use of mesh has become essential in the repair of abdominal wall incisional hernias. Suture techniques, reapplied after failure of a primary repair, are characterized by recurrence rates of up to 50 percent, whereas the reinforcement of the abdominal wall with surgical mesh has significantly decreased these rates to <10 percent. This article describes the background for the development of mesh with lightweight construction and physiological biomechanical performance.

Surgical adhesion development and prevention.
Divilio LT
Int Surg. 2005 Jul-Aug;90(3 Suppl):S6-9.

1 – THE PELVIC FLOOR 2006 02
Evaluation and management of malfunctioning sacral neuromodulator.
Gaynor-Krupnick DM, Dwyer NT, Rittenmeyer H, Kreder KJ
Urology. 2006 Feb;67(2):246-9.
OBJECTIVES: To describe a strategy for revising the malfunctioning InterStim device and to provide an algorithm for evaluation and management. METHODS: We retrospectively reviewed 82 patients who had undergone InterStim placement. Ten patients (eight women and two men) experienced complications and subsequently underwent revision of their device between October 2001 and October 2003. Five patients had originally received a permanent implant after a successful percutaneous test stimulation trial, and five had undergone a test stimulation using the tined lead. Indications for revision included gradual onset of recurrent voiding dysfunction (n = 2), lead migration (n = 5), generator malfunction (n = 1), generator site pain and infection (n = 1), and genital/rectal pain with stimulation (sensory discomfort; n = 1). RESULTS: Of the 10 patients who underwent revision, 7 experienced complete resolution of their problem. Eight patients had lead site changes and two had generator replacements. No intraoperative or postoperative complications occurred in the revision cases. CONCLUSIONS: In our experience, 70% of patients who undergo revision of the malfunctioning InterStim can expect success. In this study, no difference in success appeared to be related to the original cause of malfunction. In the management of malfunctioning sacral neuromodulators, we recommend an attempt at revision before permanent explantation.

Introducing patient cards in clinical routine: evaluation of two research projects.
Birkmann C, Demski H, Engelbrecht R
Methods Inf Med. 2006;45(1):73-8.
OBJECTIVE: Two research projects were analyzed in order to identify key factors of success and/or failure in introducing patient card-based systems in clinical routine. METHODS: In DIABCARD an evaluation study focussing on user friendliness and user acceptance was conducted. In ByMedCard-HCPP the project's

system was validated and the timeliness of the project's work analyzed. RESULTS: User friendliness and user acceptance of the DIABCARD system were fairly high. The ByMedCard-HCPP system was complete in its major components and functionalities; introducing the ByMedCard-HCPP system in clinical routine delayed the project. CONCLUSIONS: A multitude of key factors of success such as utilized technologies, user involvement, and commitment of partners seems to contribute to the success and/or failure of introducing patient card-based systems in healthcare.

2 – FUNCTIONAL ANATOMY 2006 02

Striated muscle fiber compositions of human male urethral rhabdosphincter and levator ani.
Sumino Y, Sato F, Kumamoto T, Mimata H
J Urol. 2006 Apr;175(4):1417-21.
PURPOSE: We clarified the contractile properties of human male periurethral striated muscle fibers to better understand how the rhabdosphincter and the levator ani maintain urinary continence. MATERIALS AND METHODS: Muscle specimens were obtained from 52 male patients who underwent radical prostatectomy or radical cystectomy. The specimens were frozen in liquid nitrogen. Frozen sections (10 mum thick) were stained with myofibrillar ATPase at different pH values (pH 4.2, 4.6 and 10.6), and evaluated for quantitative parameters and fiber type distribution. Myosin heavy chain analysis was performed using SDS-PAGE. RESULTS: Of all 52 cases 37 provided specimens that could be divided into the 2 major fiber types, type 1 (slow twitch) and type 2 (fast twitch). Although type 1 muscle fibers were predominant in RS and LA muscle groups (RS 69.6 +/- 2.7%, LA 67.0 +/- 2.0%), mean muscle fiber size was significantly smaller in RS (mean area 906 +/- 86 mum(2)) than in LA (mean area 2,967 +/- 170 mum(2)) ($p < 0.0001$). In 11 specimens type 2 muscle fibers could be subdivided into types 2A (fast fatigue resistant) and 2B (fast fatigable). Type 2A fibers were significantly more prevalent than type 2B fibers ($p < 0.05$). Likewise, MHC analysis of these 11 specimens found a significantly higher percentage of fiber type 2A expression products (MHC 2A) than of fiber type 2B expression products (MHC 2X) ($p < 0.05$). CONCLUSIONS: RS and LA contribute to urinary continence mechanism by slow contraction. Moreover, the smaller mean size of muscle fibers in RS suggests more fatigue resistance compared with muscle fibers in LA because small fibers have a shorter diffusion distance for metabolic substrates. These results should help contribute to a more detailed understanding of the function of periurethral striated muscles in the human male.

Going in circles: conserved mechanisms control radial patterning in the urinary and digestive tracts.
Mendelsohn C
J Clin Invest. 2006 Mar;116(3):635-7.
Radial patterning in the urinary tract and gut depends on reciprocal signaling between epithelial cells, which form mucosa, and mesenchyme, which forms smooth muscle and connective tissue. These interactions depend on sonic hedgehog (Shh), which is secreted by epithelial cells and induces expression of bone morphogenetic protein 4 (Bmp4), a signaling molecule required for differentiation of smooth muscle progenitors. Patterning of the specialized mucosa lining the anterior-posterior (A-P) axis may be controlled independently by regionally expressed mesenchymal transcription factors. A study by Airik et al. in this issue of the JCI reveals that T-box 18 (Tbx18), a transcription factor selectively expressed in ureteral mesenchyme, regulates smooth muscle differentiation by maintaining Shh1 responsiveness in mesenchymal progenitors. Deletion of Tbx18 resulted in defective urothelial differentiation at the level of the ureter, suggesting that Tbx18 acts via mesenchyme as an important regulator of A-P patterning in the urinary tract.

Estrogen receptors and human disease.
Deroo BJ, Korach KS
J Clin Invest. 2006 Mar;116(3):561-70.
Estrogens influence many physiological processes in mammals, including but not limited to reproduction, cardiovascular health, bone integrity, cognition, and behavior. Given this widespread role for estrogen in human physiology, it is not surprising that estrogen is also implicated in the development or progression of numerous diseases, which include but are not limited to various types of cancer (breast, ovarian, colorectal, prostate, endometrial), osteoporosis, neurodegenerative diseases, cardiovascular disease, insulin resistance, lupus erythematosus, endometriosis, and obesity. In many of these diseases, estrogen mediates its effects through the estrogen receptor (ER), which serves as the basis for many therapeutic interventions. This Review will describe diseases in which estrogen, through the ER, plays a role in the development or severity of disease.

Visible Korean Human: Its techniques and applications.
Park JS, Chung MS, Hwang SB, Shin BS, Park HS
Clin Anat. 2006 Feb 27;.

Three recent studies have offered an unprecedented view of the human body. The Visible Human Project, the Visible Korean Human (VKH), and the Chinese Visible Human have featured the serial sectioning of whole cadavers, producing cross-sectional images that methodically catalogue gross human anatomy. By volumetric reconstruction, these cross-sectional images can be transformed into three-dimensional (3D) images of anatomic structures. Compiling these 3D images would create an invaluable library for medical education and research. The goal of this report is to promote the expansion of such a library of 3D anatomic images and to help users fully understand and utilize the serially sectioned images. To do this, we will discuss the fundamental techniques and equipment used in the VKH and its preliminary experiments. We will also address new applications of the VKH, including virtual brain surgery, virtual endoscopy, and virtual cardiopulmonary resuscitation via the development of virtual dissection software. Clin. Anat., 2006. (c) 2006 Wiley-Liss, Inc.

Chinese visible human project.
Zhang SX, Heng PA, Liu ZJ
Clin Anat. 2006 Feb 27;.
Research on the digital visible human is of great significance and has considerable application value. The US visible human project created the first digital image dataset of a complete human (one male and one female) in 1995. To promote worldwide application-oriented visible human research, additional visible human datasets, representative of different populations of the world, are needed. The Chinese visible human (CVH) male (created in October 2002) and female (created in February 2003) Project achieved greater integrity of images, better blood vessel identification, and were free of organic disease. The most noteworthy technical advance of the Chinese visible human project (CVHP) was the construction of a low temperature laboratory, which prevented loss of small structures (including teeth, nasal conchae, and articular cartilage) from the milling surface. Thus, better integrity of images was achieved. To date, we have acquired five CVH datasets and volume rendered them for visualization on a PC. 3D reconstruction of some organs and structures has been completed and work to segment a complete dataset is under way. Although there is still a long way to go to make the visible human meet the application-oriented needs in various fields, progress is being made toward acquiring new datasets, performing segmentation, and setting up a platform of computer-assisted medicine. Here, we review the history and highlights of the CVHP and foresee its future development as well. Clin. Anat., 2006. (c) 2006 Wiley-Liss, Inc.

An interactive three-dimensional virtual body structures system for anatomical training over the internet.
Temkin B, Acosta E, Malvankar A, Vaidyanath S
Clin Anat. 2006 Feb 27;.
The Visible Human digital datasets make it possible to develop computer-based anatomical training systems that use virtual anatomical models (virtual body structures-VBS). Medical schools are combining these virtual training systems and classical anatomy teaching methods that use labeled images and cadaver dissection. In this paper we present a customizable web-based three-dimensional anatomy training system, W3D-VBS. W3D-VBS uses National Library of Medicine's (NLM) Visible Human Male datasets to interactively locate, explore, select, extract, highlight, label, and visualize, realistic 2D (using axial, coronal, and sagittal views) and 3D virtual structures. A real-time self-guided virtual tour of the entire body is designed to provide detailed anatomical information about structures, substructures, and proximal structures. The system thus facilitates learning of visuospatial relationships at a level of detail that may not be possible by any other means. The use of volumetric structures allows for repeated real-time virtual dissections, from any angle, at the convenience of the user. Volumetric (3D) virtual dissections are performed by adding, removing, highlighting, and labeling individual structures (and/or entire anatomical systems). The resultant virtual explorations (consisting of anatomical 2D/3D illustrations and animations), with user selected highlighting colors and label positions, can be saved and used for generating lesson plans and evaluation systems. Tracking users' progress using the evaluation system helps customize the curriculum, making W3D-VBS a powerful learning tool. Our plan is to incorporate other Visible Human segmented datasets, especially datasets with higher resolutions, that make it possible to include finer anatomical structures such as nerves and small vessels. Clin. Anat., 2006. (c) 2006 Wiley-Liss, Inc.

Baseline dimensions of the human vagina.
Barnhart KT, Izquierdo A, Pretorius ES, Shera DM, Shabbout M, Shaunik A
Hum Reprod. 2006 Feb 14;.
BACKGROUND: Vaginal anatomy has been poorly studied. This study aimed to measure baseline dimensions of the undistended vagina of women of reproductive age. METHODS: We combined baseline information collected from five clinical trials using magnetic resonance imaging (MRI) to quantify distribution

of a vaginal gel. Seventy-seven MRI scans were performed on 28 women before gel application to establish baseline vaginal measurements. Average dimensions were calculated for each woman and for the population. The influence of potential covariates (age, height, weight and parity) on these dimensions was assessed. RESULTS: MRI measurements are reproducible. The SD surrounding the mean at each anatomical site, and with summary measurements, was significantly smaller with each subject compared with the population. Mean vaginal length from cervix to introitus was 62.7 mm. Vaginal width was largest in the proximal vagina (32.5 mm), decreased as it passed through the pelvic diaphragm (27.8 mm) and smallest at the introitus (26.2 mm). Significant positive associations were parity with vaginal fornix length, age with pelvic flexure width and the height with width at the pelvic flexure. CONCLUSION: No one description characterized the shape of the human vagina. Although there is variation among women, variables such as parity, age and height are positively associated with differences in baseline dimensions.

Anal Electrical Stimulation With Long Pulses Increases Anal Sphincter Pressure in Conscious Dogs.
Nie Y, Pasricha JP, Chen JD
Dis Colon Rectum. 2006 Feb 13;.
PURPOSE: This study was designed to investigate the effects and mechanisms of anal electric stimulation with long pulses on anal sphincter pressure in conscious dogs. METHODS: The study was performed after enema in nine healthy female hound dogs and composed of four randomized sessions ("dose"-response, anal electric stimulation only, or with atropine or phentolamine). The anal sphincter pressure was measured by using manometry and quantified by using the area under the contractile curve (mmHg/sec). Anal electric stimulation was performed via a pair of ring electrodes attached to a manometric catheter. The stimulation parameters in all but dose-response sessions included a frequency of 20 ppm, pulse width of 200 ms, and amplitude of 3 mA. RESULTS: The anal sphincter pressure was 55.7 +/- 6 at baseline and increased by 37 percent to 76.4 +/- 6.5 during electric stimulation ($P = 0.009$). The increase of anal pressure during stimulation was positively correlated with the stimulation energy ($r = 0.395$; $P < 0.01$). The excitatory effect of electric stimulation was sustained for at least 20 minutes. Atropine did not alter anal pressure and did not abolish the excitatory effect of anal electric stimulation on the sphincter. Phentolamine reduced anal pressure from the baseline value of 50.5 +/- 4.7 to 33.1 +/- 5.4 ($P = 0.019$). The electric stimulation induced increase in anal pressure was dropped from 19 +/- 2.6 to 9.9 +/- 2.8 ($P = 0.029$) at the presence of phentolamine. CONCLUSIONS: Anal electric stimulation with long pulses increases anal sphincter pressure in an energy-dependent manner. The alpha-adrenergic but not the cholinergic pathway at least partially mediates the excitatory effect of anal electric stimulation.

3 – DIAGNOSTICS 2006 02

Valsalva leak point pressure to determine internal sphincter deficiency in stress urinary incontinence.
Rodrigues P, Afonso Y, Hering FO, Campagnari JC, Azoubel A
Urol Int. 2006;76(2):154-8.
INTRODUCTION: Valsalva leak point pressure (VLPP) represents the global competence of the conjunctive forces around the urethra to support increased pressure from the abdominal cavity with transmission to the bladder. Assessment of VLPP has prognostic meaning, but measurement techniques are still subject to controversy. PATIENTS AND METHODS: One hundred and eight consecutive women with no genital prolapse or bladder hyperactivity exclusively presenting with urinary stress incontinence were submitted to VLPP determination during urodynamic evaluation using a rectal and urethral catheter. Rectal pressure measurement served as the landmark in the determination of Valsalva's maneuver. After determining the rectal pressure, the urethral probe was pulled out and the maneuver repeated. RESULTS: Eighty-four cases (group I) presented leakage during Valsalva's maneuver with the urethral catheter being in place. Group Ia (66.6%) had a reduction of 44.5 cm H(2)O in the rectal pressure after catheter removal. In group Ib, rectal leakage pressure increased after catheter removal from 76.5 +/- 18.7 to 79.5 +/- 24.7 cm H(2)O. Eight patients did not demonstrate urine leakage after catheter removal. In group II, 24 cases showed a rise in rectal leakage pressure to 76.2 +/- 22 cm H(2)O, but urinary leakage was only observed after catheter removal. In group IIa (19 cases), the VLPP decreased by 12.6 +/- 15 cm H(2)O, while in group IIb (5 cases) leakage occurred only in patients showing an increase of 22.2 +/- 7 cm H(2)O in the rectal pressure after the second maneuver with the urethral catheter in position. CONCLUSIONS: Precise determination of the abdominal leak point pressure through Valsalva's maneuver may be critical. The different techniques used for VLPP determination may render comparisons difficult. Rectal pressure measurement with no urethral catheter in place to monitor abdominal leak pressure seems to be more appropriate because it resembles clinical practice. Although lower abdominal leakage pressures may be found, this is not a uniform finding, and a higher incidence of type III incontinence may be expected, and critical analysis or painstaking repetition may be required in the case of lack of demonstration of urinary loss.

Capsule endoscopy in 2005: Facts and perspectives.
Delvaux M, Gerard Gay
Best Pract Res Clin Gastroenterol. 2006 Feb;20(1):23-39.
Capsule endoscopy has recently been introduced to explore endoscopically the whole small intestine, fulfilling a gap between examinations of the upper and lower gastrointestinal tract. The technique consists of a miniaturized endoscope, embedded in a swallowable capsule that is propulsed by peristalsis and achieves the journey to the right colon in five to eight hours. Images captured by the capsule are recorded on a hard drive worn in a belt by the patient. The main indication for capsule examination is the examination of the small bowel to find a bleeding lesion in patients with obscure bleeding. Several studies have shown that the diagnostic yield of capsule endoscopy is superior to that of push enteroscopy in this indication. Other possible indications are patients with suspected intestinal location of Crohn's disease, familial adenomatous polyposis, complicated coeliac disease and lesions due NSAIDs. The review contains information on the technical aspects of capsule endoscopy and discusses the indications. Issues of safety and tolerance are also discussed.

Does a negative screening colonoscopy ever need to be repeated?
Brenner H, Chang-Claude J, Seiler CM, Sturmer T, Hoffmeister M
Gut. 2006 Feb 9;.
BACKGROUND: Screening colonoscopy is thought to be a powerful and cost-effective tool to reduce colorectal cancer (CRC) incidence and mortality. Whether and when colonoscopy with negative findings has to be repeated is not well defined. AIM: To assess long-term risk of clinically manifest CRC among subjects with negative findings at colonoscopy. PATIENTS: 380 cases and 485 controls participating in a population-based case-control study in Germany. METHODS: Detailed history and results of previous colonoscopies were obtained by interview and from medical records. Adjusted relative risks of CRC among subjects with a previous negative colonoscopy compared to subjects without previous colonoscopy were estimated according to time since colonoscopy. RESULTS: Subjects with previous negative colonoscopy had a 74% lower risk of CRC than subjects without previous colonoscopy (adjusted odds ratio, aOR, 0.26, 95% confidence interval, CI, 0.16-0.40). This low risk was seen even if the colonoscopy had been performed up to 20 or more years ago. Particularly low risks were seen for sigma cancer (aOR 0.13, 95% CI 0.04-0.43) and for rectum cancer (aOR 0.19, 95% CI 0.09-0.39), and after a negative screening colonoscopy at ages 55-64 (aOR 0.17, 95% CI 0.08-0.39) and older (aOR 0.21, 95% CI 0.10- 0.41). CONCLUSIONS: Subjects with negative findings at colonoscopy are at very low risk of CRC and might not need to undergo repeat colonoscopy for 20 years or more, if at all. The possibility to extend screening intervals to 20 years or more might reduce complications, and increase feasibility and cost-effectiveness of colonoscopy based screening programs.

Enteric flora in health and disease.
Guarner F
Digestion. 2006;73 Suppl 1:5-12. Epub 2006 Feb 8.
The human gut is the natural habitat for a large and dynamic bacterial community. Recently developed molecular biology tools suggest that a substantial part of these bacterial populations are still to be described. However, the relevance and impact of resident bacteria on host's physiology and pathology is well documented. Major functions of the gut microflora include metabolic activities that result in salvage of energy and absorbable nutrients, protection of the colonized host against invasion by alien microbes, and important trophic effects on intestinal epithelia and on immune structure and function. Gut bacteria play an essential role in the development and homeostasis of the immune system. It is important to underscore that the specialised lymphoid follicles of the gut mucosa are the major sites for induction and regulation of the immune system. On the other hand, there is evidence implicating the gut flora in certain pathological conditions, including multisystem organ failure, colon cancer and inflammatory bowel diseases.

4 – PROLAPSES 2006 02
Recurrent pelvic floor defects after abdominal sacral colpopexy.
Blanchard KA, Vanlangendonck R, Winters JC
J Urol. 2006 Mar;175(3 Pt 1):1010-3; discussion 1013.
PURPOSE: The incidence of site specific pelvic organ prolapse defects following sacral colpopexy is not clearly reported. We evaluated site specific pelvic organ defects after colpopexy and determined its impact on patient satisfaction. MATERIALS AND METHODS: A total of 40 women with vault prolapse underwent abdominal sacral colpopexy, culdeplasty and paravaginal repair. Followup consisted of pelvic examination and satisfaction assessment every 6 months. The Baden-Walker classification was used and prolapse

halfway to the introitus (grade II) or greater was considered significant prolapse. Surgical failure was identified as grade III prolapse or greater. Satisfaction was assessed on a scale of 1 to 3 with 3 being highly satisfied and according to whether patients perceived a successful outcome. RESULTS: A total of 40 patients with an average age of 66.5 years (range 48 to 81) had an average followup of 25.5 months (range 18 to 42). Of the 40 patients 22 (55%) did not have significant prolapse, including 14 with no prolapse, and 8 with grade I cystocele and/or rectocele. Of the 40 patients 18 (45%) had recurrent significant prolapse, including cystocele in 8 (grades II and III in 4 each), rectocele in 6 (grades II and III in 2 and 4, respectively), and grade II cystocele and rectocele in 3. There was 1 case of recurrent vault prolapse. Eight of 40 cases (20%) were considered surgical failures. Patients without prolapse were highly satisfied (average score 2.95) and 100% considered surgery to have been successful. The recurrent prolapse group was less satisfied (mean score 2.5) and 66.7% considered the surgery successful. CONCLUSIONS: Recurrent pelvic organ prolapse is not an uncommon finding after colpopexy and it may adversely affect patient satisfaction.

[Laparoscopic sacral colpopexy: comparison of nonresorbable prosthetic tape (Mersuture) and a SIS collagen matrix (Surgisis ES)]
Grynberg M, Dedecker F, Staerman F
Prog Urol. 2005 Sep;15(4):751-5; discussion 755.

Neural pain after uterosacral ligament vaginal suspension.
Lowenstein L, Dooley Y, Kenton K, Mueller E, Brubaker L
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Mar 8;.
Neural compromise has been reported after a wide variety of reconstructive pelvic procedures. We report on two women who had undergone a seemingly uncomplicated transvaginal uterosacral suspension for the treatment of pelvic organ prolapse. Both women presented shortly after surgery with a unilateral, shooting groin pain with radiation along the ipsilateral lumbosacral nerve distribution. Surgical removal of the permanent stitch and physical therapy provided prompt and near-complete relief. This case report describes the possibility of neural compromise after uterosacral ligament suspension.

Risk factors associated with hemorrhoidal symptoms in specialized consultation.
Pigot F, Siproudhis L, Allaert FA
Gastroenterol Clin Biol. 2005 Dec;29(12):1270-4.
Epidemiology and risk factors of hemorrhoidal disease are not well defined. AIMS AND METHODS: Past history and events occurring during the last two weeks before a medical visit for acute hemorrhoidal symptoms were analyzed and compared with controls consulting for any other diagnosis without exclusion. RESULTS: Among complete inquiries returned by 931 private gastroenterologists, files from 1033 patients (542 males) and 1028 controls (504 males) were randomly selected. Hemorrhoidal disease patients were younger (47 +/- 14.5 vs. 52 +/- 16.5 yrs; P<0.0001); sex ratio was not different from controls. Factors significantly associated with hemorrhoidal crisis were: past history of hemorrhoidal symptoms, age<50 yrs, past history of anal fissure, occupational activity (OR 5.17; 1.95; 1.72; 1.43; P<0.1) and recent unusual events: spicy diet, constipation, physical activity, alcohol intake (OR 4.95; 3.93; 2.79; 1.99; P<0.1). Stress protected against hemorrhoids (OR 0,49; P<0.0001). For women aged less than 40 yrs, no significant risk factor related with genital activity was found for hemorrhoidal disease. CONCLUSION: For young patients, especially those with a past hemorrhoidal history, spice or alcohol intake and constipation are risk factors for hemorrhoidal crisis. For young women, prevention is essentially based on treatment of constipation associated with genito-obstetrical events.

Opinions and Facts on Reinterventions After Complicated or Failed Stapled Hemorrhoidectomy.
Dis Colon Rectum. 2006 Feb 21;.

Pathophysiology and Role of Biofeedback Therapy in Solitary Rectal Ulcer Syndrome.
Rao SS, Ozturk R, De Ocampo S, Stessman M
Am J Gastroenterol. 2006 Feb 8;.
BACKGROUND: Solitary rectal ulcer syndrome (SRUS) is a behavioral disorder whose pathophysiology is incompletely understood. Likewise, its treatment, particularly the role of biofeedback therapy (BT) is unclear. AIM: To evaluate anorectal function and morphology and to assess efficacy of BT. METHODS: Eleven patients (8f) with refractory SRUS underwent symptom assessments, anorectal manometry, defecography, balloon expulsion test, and sigmoidoscopy. Physiological tests were also performed in 15 (11f) healthy controls. Subsequently, SRUS patients underwent biofeedback treatment. Symptoms and manometry were reassessed. RESULTS: Nine (82%) patients exhibited dyssynergia ($p < 0.001$). Rectal sensory thresholds were decreased ($p < 0.04$). After biofeedback, straining effort and stool frequency decreased ($p < 0.05$), and

bowel satisfaction score (VAS) improved (p < 0.001). Digital maneuvers were discontinued by all five patients and bleeding stopped in 56%. The defecation index increased (p < 0.05), dyssynergia normalized, and balloon expulsion time decreased (p < 0.05). There was complete healing in 4 (36%), >/=50% healing in 2 (18%), and <50% healing in 4 (36%) patients. CONCLUSIONS: SRUS associated with excessive straining, digital disimpaction, rectal hypersensitivity, dyssynergic defecation, and prolonged evacuation. BT may improve symptoms and anorectal function and facilitate healing.

Stapled vs open hemorrhoidectomy: long-term outcome of a randomized controlled trial.
Picchio M, Palimento D, Attanasio U, Renda A
Int J Colorectal Dis. 2006 Feb 15;.
Both stapled and Milligan-Morgan techniques guarantee satisfactory long-term results. Larger studies are needed to assess the durability of stapled hemorrhoidectomy.

Mesh invasion of the rectum: an unusual late complication of rectal prolapse repair.
Karagulle E, Yildirim E, Turk E, Akkaya D, Moray G
Int J Colorectal Dis. 2006 Mar 7;.
Various surgical techniques have been described for repair of rectal prolapse; however, there is no agreement on a standard treatment method. In the Ripstein procedure, the rectum is fixed to the sacrum with a piece of mesh material. We describe the case of a patient who had undergone a Ripstein procedure to address rectal prolapse 6 years before admission to our clinic. His complaints were anal discomfort, abdominal discomfort, and tenesmus of 2 years duration. Rectoscopy and abdominal computed tomography (CT) revealed that the mesh had penetrated the rectal wall and was located within the rectal lumen 7-8 cm from the anal verge. Once the mesh was endoscopically, and the patient's symptoms resolved completely. Various complications of mesh implantation for rectal prolapse repair have been documented, but rectal wall penetration has not been reported to date. This report presents our case of this unusual complication and reviews the relevant literature.

Management of Recurrent Rectal Prolapse: Surgical Approach Influences Outcome.
Steele SR, Goetz LH, Minami S, Madoff RD, Mellgren AF, Parker SC
Dis Colon Rectum. 2006 Feb 13;.
INTRODUCTION: Recurrent rectal prolapse is an unresolved problem and the optimal treatment is debated. This study was designed to review patterns of care and outcomes in a large cohort of patients after surgery for recurrent prolapse. METHODS: From 685 patients who underwent operative repair for full-thickness external rectal prolapse, we identified 78 patients (70 females; mean age, 66.9 years) who underwent surgery for recurrence. We reviewed the subsequent management and outcomes for these 78 patients. RESULTS: Mean interval to their first recurrence was 33 (range, 1-168) months. There were significantly more re-recurrences after reoperation using a perineal procedure (19/51) compared with an abdominal procedure (4/27) for their recurrent rectal prolapse (P = 0.03) at a mean follow-up of nine (range, 1-82) months. Patients undergoing abdominal repair of recurrence were significantly younger than those who underwent perineal repair (mean age, 58.5 vs. 71.5 years; P < 0.01); however, there was nosignificant difference between the two groups with regard to the American Society of Anesthesiologists classification (P = 0.89). Eighteen patients had surgery for a second recurrence, with perineal repairs associated with higher failure rates (50 vs. 8 percent; P = 0.07). Finally, when combining all repairs, the abdominal approach continued to have significantly lower recurrence rates (39 vs. 13 percent; P < 0.01). CONCLUSIONS: The re-recurrence rate after surgery for recurrent rectal prolapse is high, even at a relatively short follow-up interval. Our data suggest that abdominal repair of recurrent rectal prolapse should be undertaken if the patient's risk profile permits this approach.

Randomized controlled trial of LigaSure with submucosal dissection versus ferguson hemorrhoidectomy for prolapsed hemorrhoids.
Wang JY, Lu CY, Tsai HL, Chen FM, Huang CJ, Huang YS, Huang TJ, Hsieh JS
World J Surg. 2006 Mar;30(3):462-6.
LigaSure hemorrhoidectomy with submucosal dissection is a safe, effective procedure for grade III and IV hemorrhoids. Patients derive greater short-term benefits: reduced intraoperative blood loss, operating time, and postoperative pain as well as earlier resumption of work or normal activity. Long-term follow-up with a larger number of patients is required to confirm the long-term results of this procedure.

5 – RETENTIONS 2006 02
Healthy, middle-aged, history-free, continent women-do they strain to void?
Pauwels E, De Laet K, De Wachter S, Wyndaele JJ

J Urol. 2006 Apr;175(4):1403-7.
PURPOSE: We evaluated to what extent abdominal straining is used for voiding in an asymptomatic, continent, healthy, middle-aged female population. MATERIALS AND METHODS: A total of 32 women (mean age 49 +/- 6 years old) could be prospectively included. Technical investigations consisted of flowmetry, pressure flowmetry with EMG and electrosensation evaluation. Some data were compared with those of stress incontinent women investigated prospectively in the same way. RESULTS: There were 4 women who were excluded from analysis because of abnormal sensory evaluation. The symptom-free participants voided with low detrusor pressure, a high flow rate and no residual. A large segment (42%) used additional abdominal straining to void on cystometry and reported that such straining was their usual habit for voiding at home. Straining was seen as frequent in women with stress incontinence. However, significantly more women with stress incontinence used straining without detrusor contraction. CONCLUSIONS: These healthy middle-aged women without a history of pelvic surgery, or symptoms or signs of urological, anorectal or gynecological problems, voided with a mean Pdetmax of 25 cm H(2)O, mean Qmax of 29 ml per second, and the majority without residual. Many of them strained during detrusor contraction and this had not led to the development of signs or symptoms. The way straining is done may make the difference in that during reflex bladder contraction and urethral relaxation, additional straining may have little negative effect. If straining is used to void without the initiation of the micturition reflex, voiding dysfunction and incontinence might develop more easily.

Technique and results of urethroplasty for female stricture disease.
Schwender CE, Ng L, McGuire E, Gormley EA
J Urol. 2006 Mar;175(3 Pt 1):976-80; discussion 980.
PURPOSE: Urethral stricture disease in females is uncommon and is often treated with repeat dilation or internal urethrotomies. Various surgical techniques to repair strictures have been described with successful results. However, these techniques are cumbersome to use. The vaginal inlay flap is simple and easy to learn. To our knowledge this is the first report of its use and clinical results in a series of patients from 2 institutions. MATERIALS AND METHODS: Eight symptomatic women with a history of traumatic or difficult catheterization, a history of at least 1 urethral dilation or urethrotomy and difficult or a failed attempt at catheter placement underwent urethroplasty. The technique consisted of incising the posterior aspect of the stricture and advancing a vaginal inlay flap. A retrospective chart review was performed. RESULTS: Followup was 1 to 9 years. All patients had subjective relief of symptoms and could easily catheterize with a 14Fr catheter. Average caliber of the urethra increased from 9.25Fr to 16.5Fr and post-void residual urine decreased from 130 to 15 cc. One patient with a hypotonic bladder was in retention, which resolved during 3 months. One patient underwent repeat dilation once 3 weeks after the primary procedure with no recurrence. No patient had stress urinary incontinence. There were no immediate or delayed serious complications. CONCLUSIONS: Urethral stricture disease in females is an uncommon entity that can cause voiding symptoms, recurrent infections, retention and renal impairment. This method of surgical repair offers a durable result and has a low incidence of complications.

Herpes zoster-associated acute urinary retention: a case report.
Julia JJ, Cholhan HJ
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Mar 7;.
An 87-year-old woman presents with a 4-week history of urinary incontinence during which she had been treated for disseminated herpes zoster virus (HZV). On physical exam painful vesicles involving the entire vulvar region with mainly right sacral distribution were found. A catheterized volume exceeded 600 ml of retained urine after the patient failed to void spontaneously. Multichannel voiding-pressure urodynamic studies revealed an acontractile neurogenic bladder with overflow incontinence. The patient was discharged on a conservative regimen with arrangement for visiting nurse services to perform intermittent self-catheterization twice daily. Urodynamic testing was repeated 10 weeks after initial symptoms. During voiding cystometry a biphasic increase in detrusor pressure of 15 cm H(2)O was observed with no increase in abdominal pressure. The patient emptied 400 ml with a postvoid residual of 300 ml. Recovery from HZV-associated bladder emptying dysfunction can be achieved usually through conservative management, including intermittent self-catheterization. Complete recovery time ranges from 4 to 10 weeks.

Obstructive primary bladder neck disease: evaluation of the efficacy and safety of alpha1-blockers.
Cisternino A, Zeccolini G, Calpista A, De Marco V, Prayer Galetti T, Iafrate M, Artibani W
Urol Int. 2006;76(2):150-3.

Technique and results of urethroplasty for female stricture disease.
Schwender CE, Ng L, McGuire E, Gormley EA

J Urol. 2006 Mar;175(3 Pt 1):976-80; discussion 980.
Urethral stricture disease in females is an uncommon entity that can cause voiding symptoms, recurrent infections, retention and renal impairment. This method of surgical repair offers a durable result and has a low incidence of complications.

Information from your family doctor. Help for your child's constipation.
Am Fam Physician. 2006 Feb 1;73(3):481-2.

[Stopping smoking and constipation.]
Lagrue G, Cormier S, Mautrait C, Divine C
Presse Med. 2006 Feb;35(2 Pt 1):246-8.
Introduction>Among the symptoms that may occur with smoking withdrawal, constipation is relatively frequent, but little studied. Case>Three women reported that constipation developed when they stopped smoking and improved during transient relapses. DISCUSSION:>This constipation sometimes produces serious functional disorders and can induce relapse. It occurs especially among women and those predisposed to it. Nicotine, by acting on the parasympathomimetic system, increases intestinal peristalsis, and a cigarette can appear to be effective self-medication. Magnesium salts are the first-line treatment for this problem. If they fail, neostigmine, an anticholinesterase with parasympathomimetic activity, appears remarkably effective in correcting this disorder.

Information from your family doctor. Chronic constipation in your child.
Am Fam Physician. 2006 Feb 1;73(3):479-80.

Evaluation and treatment of constipation in infants and children.
Biggs WS, Dery WH
Am Fam Physician. 2006 Feb 1;73(3):469-77.

Differences Between Painless and Painful Constipation Among Community Women.
Bharucha AE, Locke GR, Zinsmeister AR, Seide BM, McKeon K, Schleck CD, Melton LJ 3rd
Am J Gastroenterol. 2006 Feb 8;.
BACKGROUND: In the Rome II criteria, patients with both constipation and abdominal pain (AP) (i.e., "painful constipation" (PC)), who do not satisfy criteria for irritable bowel syndrome (IBS) are included in the same functional constipation (FC) category as patients with constipation without AP (i.e., "painless constipation" (PLC)). What differences, if any, exist between FC without (i.e., PLC) and with AP (i.e., PC) are unclear. METHODS: To compare clinical features among PLC, PC, constipation-predominant IBS (C-IBS), and non-C-IBS, a validated questionnaire was mailed (with telephone follow-up of nonresponders) to an age-stratified random sample of 5,200 adult women in Olmsted County, Minnesota. RESULTS: Altogether, 2,800 women (53%) responded. The age-adjusted prevalence of PLC (7.1 per 100; 95% confidence interval (95% CI), 6.2-8.0) was higher compared to PC (0.9 per 100; 95% CI, 0.6-1.2). Compared to PLC, patients with PC reported worse general health (i.e., excellent or very good = 37.5%vs 51.2%), more somatic symptoms (mean score = 1.3 vs 0.9), and urinary urgency (% often = 58%vs 32%), and had a higher prevalence of hysterectomy. Bowel symptoms significantly impacted >/=1 domain of quality of life (QOL) in 18% of PC versus 9% of PLC. In a logistic discriminant model, age, general health, impact of bowel symptoms on QOL, somatic symptoms, and urinary urgency independently discriminated between bowel subtypes. CONCLUSIONS: Patients with PC more closely resemble those with C-IBS than PLC. Consideration should be given to separating PC from PLC in the Rome criteria and in therapeutic trials.

6 – INCONTINENCES 2006 02

Electrophysiologic Studies and Clinical Findings in Females With Combined Fecal and Urinary Incontinence: A Prospective Study.
Lacima G, Pera M, Valls-Sole J, Gonzalez-Argente X, Puig-Clota M, Espuna M
Dis Colon Rectum. 2006 Feb 13;.
PURPOSE: Several clinical, urodynamic, and manometric findings suggest neurologic damage as a contributing factor in the development of combined fecal and urinary incontinence. In this study, we wanted to test the hypothesis of pudendal nerve neuropathy being a more frequent lesion in patients with double incontinence compared with patients with isolated fecal incontinence. PATIENTS: Ninety-three females with combined fecal and urinary incontinence and 36 females with isolated fecal incontinence were investigated. All patients underwent anal manometry, endoanal ultrasound, electromyography, and pudendal nerve terminal motor latency. RESULTS: No statistically significant differences were found in the age, history of

vaginal delivery, and chronic straining between both groups. However, the rate of postmenopausal females was higher in the combined fecal and urinary incontinence group (85 vs. 67 percent; P = 0.02). Menopause was an independent risk factor of having double incontinence (odds ratio, 1.4; P = 0.02). Concentric needle electromyography of the external anal sphincter revealed increased duration of the motor unit potentials in 43 and 53 percent of patients with combined fecal and urinary incontinence and isolated fecal incontinence, respectively (P = 0.28). An increased number of polyphasic motor unit potentials was detected in 52 and 58 percent (P = 0.6). There was no statistically significant difference in the prevalence of bilateral (20 vs. 27 percent) or unilateral (23 vs. 14 percent) prolonged mean pudendal nerve terminal motor latency between both groups (P = 0.3). CONCLUSIONS: Pudendal neuropathy is not a distinct characteristic of patients with double incontinence. The prevalence of pudendal neuropathy in these patients is similar to that observed in patients with isolated fecal incontinence. Others factors should be investigated to explain the common association of both types of incontinence.

[Evaluation of the Global Abdominal Method (ABDO-MG) in the treatment of urinary incontinence]
Godbout M, Le Tu M, Watier A, Black R
Prog Urol. 2005 Sep;15(4):756-61.
This is the first study demonstrating the clinical efficacy, both objectively and subjectively, of the technique ABDO-MG in the treatment of genuine stress urinary incontinence and mixed incontinence with stress predominance in women. Our data are encouraging, however long-term study with control group is warranted.

Multicenter phase III trial studying trospium chloride in patients with overactive bladder.
Rudy D, Cline K, Harris R, Goldberg K, Dmochowski R
Urology. 2006 Feb;67(2):275-80.

Periurethral mass formations following bulking agent injection for the treatment of urinary incontinence.
Madjar S, Sharma AK, Waltzer WC, Frischer Z, Secrest CL
J Urol. 2006 Apr;175(4):1408-10.
PURPOSE: Durasphere(R) is gaining popularity as a bulking agent for treating women with stress urinary incontinence. We present a series of patients with periurethral mass formation following Durasphere(R) injection. MATERIALS AND METHODS: The charts of 135 women with a mean age of 69.4 years (range 46 to 83) who underwent Durasphere(R) periurethral injections were retrospectively reviewed. Patients who had a periurethral mass were identified and their clinical data were collected and analyzed. RESULTS: Four patients (2.9%) were diagnosed with periurethral mass formation 12 to 18 months (average 14.7) following a Durasphere(R) injection. Clinical presentation varied, including irritative voiding symptoms, pelvic pain and urinary incontinence. All patients were found to have a tender and tense periurethral mass. A radiopaque mass was revealed during videourodynamic study in 1 patient. Incision, and transvaginal and endoscopic drainage or transvaginal excision were used to treat these masses. Intraoperative and pathological findings as well as operative outcomes are presented. CONCLUSIONS: Irritative or obstructing voiding symptoms, pelvic pain or a periurethral mass in patients with a history of Durasphere(R) or other periurethral bulking agent injection should alert the physician to the possibility of periurethral mass formation. The true incidence of this late complication remains to be determined.

TVT vs Monarc: a comparative study.
Dietz HP, Barry C, Lim Y, Rane A
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Mar 7;.
Following the success of the tension-free vaginal tape (TVT), there has been considerable interest in technique modifications such as the transobturator approach for implant placement. We attempted to elucidate possible anatomical and clinical differences between the two methods in a retrospective cohort study. One hundred and fourteen women who had undergone TVT or Monarc implantation were assessed by or under the supervision of the senior author, with identical tensioning technique. They were followed up by an interview, uroflowmetry, and translabial 3D ultrasound. There were significant differences for patient satisfaction (P=0.013), subjective overall cure/improvement (P=0.0018), and the symptom of poor stream (P=0.03), all favoring the Monarc group. On imaging Monarc tapes appeared more proximal at rest (P=0.006) and Valsalva (P=0.002) and remained further from the symphysis pubis on Valsalva (P=0.01). At 9 months follow-up, there was no significant difference as regards to cure rates for stress incontinence between the two suburethral slings. Monarc tapes are located more proximally and may be less obstructive, judging from a lower incidence of symptoms of voiding dysfunction. Patient satisfaction and overall subjective cure/improvement were higher after Monarc. In summary, the Monarc is an effective TVT

alternative, achieving cure of stress incontinence by similar means. It may be less obstructive, resulting in improved patient satisfaction.

[Management of serious infectious complications of transobturator suburethral tape: report of 2 cases]
Al Nakib M, Garcia G, Bastide C, Tomatis L, Ragni E, Rossi D
Prog Urol. 2005 Sep;15(4):707-9.
Suburethral TVT tape has become immensely popular since its invention in 1995. A new transobturator surgical approach was proposed in 2001, resulting in a modification of the quality of the tape available from various suppliers. The authors present 2 cases of obturator foramen abscess related to suburethral Uratape, occurring a long time after the procedure and requiring complete removal of the tape. These infections can be prevented by using good quality tape, which must be made from monofilament large-mesh woven polypropylene. The tape must be completely removed as early as possible in the case of vaginal erosion, even asymptomatic, via a transobturator approach, if necessary.

[Transobturator surgery for female urinary continence: from outside to inside or from inside to outside: a comparative anatomic study]
Spinosa JP, Dubuis PY, Riederer B
Prog Urol. 2005 Sep;15(4):700-6.
OBJECTIVE: Transobturator route is now largely used for the positioning of the supporting sub uretral tape in the surgical treatment of female urinary incontinence. This operation can be done using the original technique from the outside to the inside or by inside to outside. Our anatomic study evaluates the specific dangers of each MATERIAL AND METHODS: Our study is based on the dissection of seven fresh bodies, therefore 14 obturator regions. The dissections were done after the positioning of the tape from outside to inside on one side and inside to outside on the other side. We particularly studied the distances separating the tape from the inferior pudendal vascular bundle and the posterior branch of the obturator nerve. RESULTS: With the inside - outside technique there is a greater proximity between the path of the tape and the studied structures, therefore the risk of damage is greater. CONCLUSIONS: The two techniques are not equivalent. There are less vascular and neurological risk using the original outside to inside technique.

[Anatomy of obturated foramen. Application to trans-obturator slings]
Cohen D, Delmas V, Boccon-Gibod L
Prog Urol. 2005 Sep;15(4):693-9.
The development of the trans-obturator sling in the treatment of female incontinence created a renewal of interest for the study of the anatomy of the obturator region, as shows the recent anatomical studies published on the subject. The objective being to consider the risks of bladder and vasculo-nervous injuries of this new way. The risk of wound of the bladder is small as concerns this technique of the mode of insetion of the sling (outside inside or inside outside) because the sling is in a strictly perineal way. The risk of damage caused in the vasculo-nervous elements of the obturator region is weak considering the position of the sling with regard to the main pedicles. These are either for distance of the sling for the obturator and femoral vessels and the saphenous vein, or protected by the obturator bone frame for the pudendal pedicle and the anterior branch of the obturator artery, or they are reduced to the state of capillaries or nerve ending. The trans-obturator sling presents the advantage to allow a strictly perineal, horizontal situation of the sling, which restores the system of a natural sub-urethral vaginal sling, avoiding complications due to the penetration of the Retzius space and of the pelvian cavity.

[Place of duloxetine in the treatment of stress urinary incontinence]
Roupret M, Richard F, Chartier-Kastler E
Prog Urol. 2005 Sep;15(4):689-92.
Urinary incontinence is a public health problem, as more than three million women in France are concerned by this problem. The prevalence of stress urinary incontinence is about 40% among these women. Duloxetine is a molecule developed for the oral treatment of stress urinary incontinence. It is a serotonin and norepinephrine reuptake inhibitor, which acts by increasing urethral sphincter tone. In several phase III trials, duloxetine administered orally at a high dose of 80 mg per day, significantly reduced episodes of incontinence. Total scores on the Incontinence Quality of Life questionnaire (I-QOL) were more markedly improved by duloxetine than by placebo. Nausea was an adverse effect observed in more than 25% of cases and required discontinuation of treatment in some patients. However, the encouraging preliminary results of duloxetine in this indication must be confirmed during phase IV post-marketing clinical trials.

[TVT associated with other gynecological operations in the same procedure: results and

complications]
Sola Dalenz V, Pardo Schanz J, Ricci Arriola P, Guiloff Fische E, Chiang Miranda H
Arch Esp Urol. 2005 Dec;58(10):983-8.
OBJECTIVES: We report our experienced with TVT combined with other gynecological procedures, and the complications appeared intraoperative and during the immediate postoperative period. METHODS: Between October 2001 and March 2004 76 patients underwent TVT procedures following the classic technique in the Urogynecology and Vaginal Surgery Unit of Las Condes Clinic. Median age was 53 years old. Urodynamic tests had demonstrated genuine stress urinary incontinence (SUI) (49 cases), intrinsic sphincter deficiency (ISD) (5 cases), and mixed urinary incontinence (MUI) (22 cases). In 61 cases (80.3%) TVT was associated with another gynecological surgery. RESULTS: 82 gynecological operations were associated to TVT Twenty one patients underwent 2 procedures (34%) and 40 patients one (66%). Laparoscopic surgery 25 cases (41%). Vaginoplasty was the most frequent procedure in 49 cases (80%), laparoscopic hysterectomy 17 (28%), vaginal hysterectomy 5 (8%), laparoscopically assisted vaginal hysterectomy 5 (8%), laparoscopic tubal ligation 3 (5%), Gargiulo operation 1 (2%), annexectomy 1 (2%), and trachelectomy 1 (2%). Introoperative complications appeared in 4 patients (6.6%). 3 cases of bladder perforation (5%), and 1 case of parietal peritoneum perforation (1.6%). No surgical intervention was necessary to solve complications. Two cases of transitory acute urinary retention appeared in the immediate postoperative period. CONCLUSIONS: Our clinical experience demonstrates that the combination of TVT with other gynecological operations in the same procedure is effective and safe. It enables a more comprehensive solution of patient's problems in the same procedure without increasing morbidity.

Health care discussions and treatment for urinary incontinence in U.S. women.
Melville JL, Newton K, Fan MY, Katon W
Am J Obstet Gynecol. 2006 Mar;194(3):729-37.
OBJECTIVE: The objective of the study was to determine the proportions of women with urinary incontinence who had discussed their condition with a health care provider or received treatment and to identify factors associated with seeking health care. STUDY DESIGN: The study was a population-based, age-stratified postal survey of 6000 women aged 30 to 90 years enrolled in a large health maintenance organization in Washington state. RESULTS: The response rate was 64% (n = 3536) after applying exclusion criteria. Eighty percent (n = 1160) of women with urinary incontinence completed a detailed set of questions on care seeking and treatments. Fifty percent had discussed their incontinence with a health care provider, 21% reported receiving surgery or prescription medication, 10% reported performing Kegel exercises, and 48% reported wearing a pad to absorb urine daily or weekly. The following factors were significantly associated with odds of discussing urinary incontinence with a health care provider: age (50 to 69 years, adjusted odds ratio 1.5 [1.1 to 2.0]; 70 to 89 years, adjusted odds ratio 1.9 [1.4, 2.7]); duration of urinary incontinence (2 to 5 years, adjusted odds ratio 1.9 [1.3 to 2.8]; more than 5 years, adjusted odds ratio 2.8 [2.0,4.1]); severe urinary incontinence (adjusted odds ratio 1.7 [1.2 to 2.6]); and greater effect on daily activities (adjusted odds ratio 2.7 [1.9,3.8]). CONCLUSION: Among women with urinary incontinence, one half have discussed their incontinence with a health care provider and one third have received any form of treatment.

Obstetric anal sphincter injury: How to avoid, how to repair: A literature review.
Power D
J Fam Pract. 2006 Mar;55(3):193-200.
Avoiding obstetrical injury to the anal sphincter is the single biggest factor in preventing anal incontinence among women. Any form of instrument delivery has consistently been noted to increase the risk of obstetric anal sphincter injury and altered fecal continence by between 2- and 7-fold. Routine episiotomy is not recommended. Episiotomy use should be restricted to situations where it directly facilitates an urgent delivery. A mediolateral incision, instead of a midline, should be considered for persons at otherwise high risk of obstetric anal sphincter injury. The internal anal sphincter needs to be separately repaired if torn. Women with injuries to the internal anal sphincter or rectal mucosa have a worse prognosis for future continence problems. All women, particularly those with risk factors for injury, should be surveyed for symptoms of anal incontinence at postpartum follow-up.

Laparoscopic cecostomy button placement for the management of fecal incontinence in children with Hirschsprung's disease and anorectal anomalies.
Yagmurlu A, Harmon CM, Georgeson KE
Surg Endosc. 2006 Feb 27;.

Prevalence of anal incontinence in adults and impact on quality-of-life.

Damon H, Guye O, Seigneurin A, Long F, Sonko A, Faucheron JL, Grandjean JP, Mellier G, Valancogne G, Fayard MO, Henry L, Guyot P, Barth X, Mion F
Gastroenterol Clin Biol. 2006 Jan;30(1):37-43.
OBJECTIVE: To investigate the prevalence of anal incontinence in the general population and in patients consulting gastroenterologist and gynecologist practices in the Rhone Alpes area. METHODS: For the first study a questionnaire was sent to a sample of 2800 people selected randomly from the electoral roll. Another study of patients selected randomly among patients attending gynecology and gastroenterology consultations was performed. A Jorge & Wexner score above or equal to 5 was used to define anal incontinence. RESULTS: For the first study, a total of 706 questionnaires was analyzed: the prevalence of anal incontinence was 5.1% [95% CI: 3.6-7.0] and the scores of each dimension of the SF-12 Health Survey were significantly lower among incontinent people than among continent people. The prevalence was significantly higher for women (7.5% [5.0-10.7]) than for men (2.4% [1.1-4.7]). Eighty-four physicians returned 835 valid questionnaires. The prevalence was 13.1% [10.1-16.6] among patients attending gastroenterology consultations and 5.0% [3.1-7.6] among those attending gynecology consultations. For 84.8% of the incontinent patients, the physician was unaware of the patient's disorder. CONCLUSION: The prevalence figures we obtained coincide with data in the literature. This disorder is common and affects the patient's quality-of-life, but remains underestimated and under-diagnosed.

[Who suffers from fecal incontinence?]
Siproudhis L, Vilotte J
Gastroenterol Clin Biol. 2006 Jan;30(1):7-8.

Adaptation to Spanish Language and Validation of the Fecal Incontinence Quality of Life Scale.
Minguez M, Garrigues V, Soria MJ, Andreu M, Mearin F, Clave P
Dis Colon Rectum. 2006 Mar 8;.
PURPOSE: The aim of this study was to perform a psychometric evaluation of the Fecal Incontinence Quality of Life Scale in the Spanish language. METHODS: Eleven hospitals in Spain participated in the study, which included 118 patients with active fecal incontinence. All the patients filled out a questionnaire on the severity of their incontinence, a general questionnaire of health (Medical Outcomes Survey Short Form), and a Spanish translation of the Fecal Incontinence Quality of Life Scale (Cuestionario de Calidad de Vida de Incontinencia Anal), which consists of 29 items in four domains: lifestyle, behavior, depression, and embarrassment. On a second visit, patients repeated the Fecal Incontinence Quality of Life Scale. For each domain, an evaluation was made of temporal reliability, internal reliability, the convergent validity with the generic questionnaire of health, and the discriminant validity correlating the domains of Cuestionario de Calidad de Vida de Incontinencia Anal with the severity of fecal incontinence. RESULTS: For cultural adaptation, the answer alternatives for 14 items were modified. A total of 111 patients (94 percent) completed the study adequately. Temporal reliability (test-retest) was good for all domains except for embarrassment, which showed significant differences ($P < 0.02$). Internal reliability was good/excellent for all domains (Cronbach alpha >0.80, between 0.84 and 0.96). The four domains of Cuestionario de Calidad de Vida de Incontinencia Anal significantly correlated with the domains of the generic questionnaire on health ($P < 0.01$) and with the scale of severity of fecal incontinence ($P < 0.001$). All domains of Cuestionario de Calidad de Vida de Incontinencia Anal correlated negatively with the need to wear pads ($P < 0.01$) and with the presence of complete fecal incontinence. CONCLUSIONS: The Cuestionario de Calidad de Vida de Incontinencia Anal incorporates sufficient requirements of reliability and validity to be applied to patients with fecal incontinence.

Overlapping anal sphincter repair and anterior levatorplasty: effect of patient's age and duration of follow-up.
Evans C, Davis K, Kumar D
Int J Colorectal Dis. 2006 Mar 7;.
Overlapping anal sphincter repair with anterior levatorplasty is an effective treatment for faecal incontinence. Patient age does not correlate with outcome, and symptoms do not deteriorate over time. Anorectal physiology results don't predict for symptomatic improvement in patients with faecal incontinence.

Injectable Silicone Biomaterial (PTQtrade mark) to Treat Fecal Incontinence After Hemorrhoidectomy.
Chan MK, Tjandra JJ
Dis Colon Rectum. 2006 Feb 22;.
The injectable silicone biomaterial is an effective treatment for passive fecal incontinence after hemorrhoidectomy providing good medium-term improvement in fecal incontinence and fecal incontinence-related quality of life.

7 – PAIN 2006 02

Does psychiatric treatment help patients with intractable chronic pain?
Kerns JW, White A, Nashelsky J, Sherman S
J Fam Pract. 2006 Mar;55(3):235-6.
Tricyclic antidepressants and intensive multidisciplinary programs are moderately effective for reducing chronic back pain; tricyclics are also effective for diabetic neuropathy and irritable bowel syndrome (strength of recommendation [SOR]: A, meta-analyses and multiple small randomized controlled trials). Cognitive therapies are modestly effective for reducing pain in the following: chronic back pain, other chronic musculoskeletal disorders including rheumatoid arthritis (SOR: B, multiple meta-analyses with significant heterogeneity), and for chronic cancer pain (SOR: B, 1 meta-analysis of various quality studies).

The role of helplessness, fear of pain, and passive pain-coping in chronic pain patients.
Samwel HJ, Evers AW, Crul BJ, Kraaimaat FW
Clin J Pain. 2006 Mar-Apr;22(3):245-51.
OBJECTIVES: The goal of this study was to examine the relative contribution of helplessness, fear of pain, and passive pain-coping to pain level, disability, and depression in chronic pain patients attending an interdisciplinary pain center. METHODS: One hundred sixty-nine chronic pain patients who had entered treatment at an interdisciplinary pain center completed various questionnaires and a pain diary. RESULTS: Helplessness, fear of pain, and passive pain-coping strategies were all related to the pain level, disability, and depression. When comparing the contribution of the predictors in multiple regression analyses, helplessness was the only significant predictor for pain level. Helplessness and the passive behavioral pain-coping strategies of resting significantly predicted disability. The passive cognitive pain-coping strategy of worrying significantly predicted depression. CONCLUSIONS: These findings indicate a role for helplessness and passive pain-coping in chronic pain patients and suggest that both may be relevant in the treatment of pain level, disability, and/or depression.

Factors predisposing women to chronic pelvic pain: systematic review.
Latthe P, Mignini L, Gray R, Hills R, Khan K
BMJ. 2006 Feb 16;.
Several gynaecological and psychosocial factors are strongly associated with chronic pelvic pain. Randomised controlled trials of interventions targeting these potentially modifiable factors are needed to assess their clinical relevance in chronic pelvic pain.

Laparoscopic excision of posterior vaginal fornix in the treatment of patients with deep endometriosis without rectum involvement: surgical treatment and long-term follow-up.
Angioni S, Peiretti M, Zirone M, Palomba M, Mais V, Gomel V, Melis GB
Hum Reprod. 2006 Feb 22;.
Complete surgical resection of deep infiltrative endometriosis with excision of the adjacent tissue of the posterior vaginal fornix improves quality of life with persistence of results for long time in patients not responsive to medical treatment.

Depression in women with endometriosis with and without chronic pelvic pain.
Lorencatto C, Petta CA, Navarro MJ, Bahamondes L, Matos A
Acta Obstet Gynecol Scand. 2006;85(1):88-92.

Perception of Electrocutaneous Stimuli in Irritable Bowel Syndrome.
Iovino P, Tremolaterra F, Consalvo D, Sabbatini F, Mazzacca G, Ciacci C
Am J Gastroenterol. 2006 Feb 8;.
Irritable bowel syndrome (IBS) and fibromyalgia syndrome (FMS) are common conditions with some similarities, but different perceptual responses to somatic and visceral stimuli. The purpose of this study was to assess in a large group of IBS patients the somatic perception by transcutaneous electrical nerve stimulation (TENS). IBS patients showed somatic hypoalgesia to electrical stimuli. The severity of IBS and the presence of FMS influence the perception of somatic stimuli induced by TENS.

Women and irritable bowel syndrome: Is the gain in pain mainly in the brain?
Gangula PR, Pasricha PJ
J Gastroenterol Hepatol. 2006 Feb;21(2):343-4.

Gender-related differences in visceral perception in health and irritable bowel syndrome.

Kim HS, Rhee PL, Park J, Lee JH, Kim YH, Kim JJ, Rhee JC
J Gastroenterol Hepatol. 2006 Feb;21(2):468-73.
The increased prevalence of IBS in women may be related to another set of pathophysiological factors, and not to gender-related differences in visceroperception.

Pharmacological treatment of the irritable bowel syndrome and other functional bowel disorders.
Mearin F
Digestion. 2006;73 Suppl 1:28-37. Epub 2006 Feb 8.
Visceral analgesics and serotonin agonists and antagonists may play an important therapeutical role in the near future. However, it is not likely that one single treatment will help every functional bowel disorder patient and many of them will need a more complex approach with a multidisciplinary therapy (diet, psychotherapy, medications).

8 – FISTULAE 2006 02

Vesicouterine fistula: a review of eight cases.
Dimarco CS, Dimarco DS, Klingele CJ, Gebhart JB
Int Urogynecol J Pelvic Floor Dysfunct. 2006 Mar 8;.

Diagnosis and conservative treatment of tubercular rectoprostatic fistula.
Kumar S, Kekre NS, Gopalakrishnan G
Ann R Coll Surg Engl. 2006 Jan;88(1):26.

Management of radiotherapy induced rectourethral fistula.
Lane BR, Stein DE, Remzi FH, Strong SA, Fazio VW, Angermeier KW
J Urol. 2006 Apr;175(4):1382-8.

Fournier's Gangrene: Three Years of Experience with 20 Patients and Validity of the Fournier's Gangrene Severity Index Score.
Tuncel A, Aydin O, Tekdogan U, Nalcacioglu V, Capar Y, Atan A
Eur Urol. 2006 Feb 14;.

Perianal actinomycosis: diagnostic and management considerations: a review of six cases.
Bauer P, Sultan S, Atienza P
Gastroenterol Clin Biol. 2006 Jan;30(1):29-32.

Intraoperative physical diagnosis in the management of anal fistula.
Gonzalez-Ruiz C, Kaiser AM, Vukasin P, Beart RW Jr, Ortega AE
Am Surg. 2006 Jan;72(1):11-5.
This report reviews a prospective database applying a systematic fistulomy technique in 101 patients requiring surgery for fistula in ano at LAC+USC Medical Center during a 15-month period. Data were collected for the reliability of primary crypt palpation, success of tract injection with peroxide/methylene blue, and the accuracy of Goodsall's rule. Time to healing, recurrence, and incontinence according to type of procedure were also recorded. Palpation of the primary crypt was possible in 93 per cent. Hydrogen peroxide/methylene blue injection successfully delineated the tract in 83 per cent. Goodsall's rule was correct in 81 per cent. Each fistula was categorized as intersphincteric (n = 72), transphincteric (n = 33), extrasphincteric (n = 1), or submucosal (n = 6). At a mean follow-up period of 44 weeks, 89.2 per cent of patients were cured. Reasons for recurrence included wound bridging (n = 6), misdiagnosis of the tract (n = 3), and two blind-ended fistulae (n = 2). Time to healing in weeks was (mean, range): simple fistulotomy (12, 3-21), seton (16, 4-28), Hanley procedure (28, 8-48). Patients with a marsupialized tract healed at an average of 6 weeks (range 4-8). Four (3.9%) patients reported postoperative incontinence (1 gas, 3 liquid, 0 solids).

Stapled Endorectal Mucosectomy for High Extrasphincteric Fistula-in-Ano: Preliminary Report.
Perez F, Arroyo A, Candela F, Calpena R
Dis Colon Rectum. 2006 Feb 13;.

Carbon dioxide laser ablation of perianal fistulas in patients with Crohn's disease: experience with 27 patients.
Moy J, Bodzin J

Am J Surg. 2006 Mar;191(3):424-7.

9 – BEHAVIOUR 2006 02

9 Psychology 2006 02

Munchausen's Syndrome With 20-Year Follow-Up.
Fehnel CR, Brewer EJ
Am J Psychiatry. 2006 Mar;163(3):547.

9 Sexology 2006 02

[Women faced with the problem of erectile dysfunction: women's view on a male problem]
Colson MH
Prog Urol. 2005 Sep;15(4):710-6.
MATERIAL AND METHODS: This study is based on an opinion survey conducted with the support of the Societe d'Etudes Francaise Louis Harris, performed by telephone on a final sample of 507 women, representative of the population of French women between the ages of 20 and 65 years, interviewed about their sexuality. In particular we studied their perception and behaviour in relation to their partner's erection problems. RESULTS: 25% of women reported that they had experienced such problems, and although it was impossible to define a predictive profile pre-disposing to this problem, their attitude in relation to this event was found to be globally positive with an attitude designed to reassure and stimulate the partner experiencing erectile dysfunction (92%). In contrast, 66.4% of women considered that their partner's attitude tended to reinforce their sexual difficulties (insistence, withdrawal, avoidance, absence of dialogue). Erectile dysfunction (ED) does not affect the sexual satisfaction of the partner concerned (satisfied in 84% of cases), who report that they suffer much more from the lack of communication, frequent in this type of situation, well than from the absence of penetration (3%). CONCLUSION: Medical consultation is still relatively rare, and is essentially requested by the woman when her partner withdraws and refuses any assistance. It is often prevented by negative cognitions concerning the irreversibility of ED, for example when it is attributed to age. There is also a significant difference between women who say that they would encourage their partner to consult for this type of problem (87%), and those who actually encourage their partner to consult when specifically faced with this problem (8%). Women faced with the problem of ED are largely more in favour of the use of erectile drugs that those of the other group.

Sexual problems in male patients older than 20 years with anorectal malformations.
Konuma K, Ikawa H, Kohno M, Okamoto S, Masuyama H, Fukumoto H
J Pediatr Surg. 2006 Feb;41(2):306-9.
BACKGROUND/PURPOSE: The nervi erigentes in high- and intermediate-type male anorectal malformation (ARM) runs a relatively medial course and is vulnerable in sacro-perineal dissection. These types of ARM are also associated with a high frequency of sacral anomaly, and sexual problems may be expected. However, sexual function cannot be evaluated until after the individual passes puberty. Few reports have investigated the sexual status of pubescent males with ARM. The present study evaluated sexual problems in patients with high- and intermediate-type ARM. METHODS: Sexual problems such as erectile dysfunction and ejaculatory incompetence were evaluated in 17 of 23 men aged more than 20 years who underwent operation for high- or intermediate-type ARM between September 1974 and January 2005. RESULTS: Erection angle was normal in 9 patients (52.9%), mild in 6 patients (35.3%), and dysfunctional in 2 patients (11.8%). Ejaculatory function was normal in 10 patients (58.8%), with ejaculatory incompetence in 5 patients (29.4%) and retrograde ejaculation in 2 patients (11.8%). Either erectile or ejaculatory dysfunction was present in 5 patients (29.4%), whereas both were present in 2 patients (11.8%). Sexual problems were identified in 7 patients (41.2%), with sacral anomalies in 5 (71.4%) of these 7 patients. CONCLUSIONS: Sexual problems such as erectile and ejaculatory dysfunction are common in patients with high- or intermediate-type ARM. Patients with sexual distress require persistent follow-up and continuous counselling to support their sexual problems.

Young people's sexual and reproductive health rights.
Sundby J
Best Pract Res Clin Obstet Gynaecol. 2006 Feb 8;.

10 – MISCELLANEOUS 2006 02
Inguinal hernia repair with spermatex: the first 100 cases.
Nicolo E
Int Surg. 2005 Jul-Aug;90(3 Suppl):S35-9.

We evaluated 100 consecutive cases of surgical repair of inguinal hernia using SpermaTex (Davol, Cranston, RI) to assess postoperative outcome measures of early and late complications and hernia recurrence. SpermaTex is a bilayer surgical mesh prosthesis consisting of a fibrosis-inducing layer of polypropylene mesh bonded to a fibrosis-inhibiting layer of expanded polytetrafluoroethylene. One hundred male patients with unilateral primary inguinal hernia, with a mean age of 49 years, underwent hernia repair with the open anterior approach using SpermaTex. Mean operative time was 35 minutes; there was 3% morbidity and no mortality. At a 14-day follow-up, no patients had postoperative pain; within 2-8 weeks, all patients had returned to their presurgical health condition, with no inguinal pain. At follow-ups of 3 months to 4 years, all 100 patients experienced no recurrence, and all had improved, although 3 patients developed chronic sinus tracts. This series shows a favorable postoperative outcome profile for the use of SpermaTex in inguinal hernia repair.

Absorbable and nonabsorbable barriers on prosthetic biomaterials for adhesion prevention after intraperitoneal placement of mesh.
Matthews BD
Int Surg. 2005 Jul-Aug;90(3 Suppl):S30-4.

Comparison of three different mesh materials in tension-free inguinal hernia repair: prolene versus Vypro versus surgisis.
Puccio F, Solazzo M, Marciano P
Int Surg. 2005 Jul-Aug;90(3 Suppl):S21-3.

Two years of wait and 7000 miles of journey: the tale of a gossypiboma.
Debnath D, Buxton JK, Koruth NM
Int Surg. 2005 Jul-Aug;90(3):130-3.
Postoperative retention of a foreign body is an infrequent but well-recognized complication. A case of a retained swab in the abdominal cavity ("gossypiboma") has been reported. In view of the high morbidity (50%) and mortality (10%) that may result from potential complications, as well as underlying medico-legal implications, it is important to ensure that every effort is made to prevent such occurrences. Presentation of gossypiboma may vary and can be caused by pseudotumoral, occlusive, or septic syndrome. Ultrasonography that shows a "hyper-reflective mass with hypoechoic rim along with a strong posterior shadow" and computed tomography that reveals "a whirl-like spongiform pattern in a hypodense mass with a thick peripheral rim" are considered the mainstay of investigations. These findings, along with a high index of suspicion, can help make a preoperative diagnosis.

Evaluation of FloSeal as a Potential Intracavitary Hemostatic Agent.
Klemcke HG
J Trauma. 2006 Feb;60(2):385-9.

Treatment of urethral syndrome: a prospective randomized study with Nd:YAG laser.
Costantini E, Zucchi A, Del Zingaro M, Mearini L
Urol Int. 2006;76(2):134-8.
INTRODUCTION: The urethral syndrome is characterized by irritative disturbances, the urgency-frequency syndrome and/or pain associated with negative urine cultures. Areas of metaplasic tissue in the trigonal-bladder neck region (trigonitis) are sometimes present. We performed a comparative randomized study to assess the efficacy of side- or end-firing neodymium (Nd):YAG laser surgery in destroying metaplasia and relieving symptoms. In the treatment of the urethral syndrome the few reports on attempts to restore a normal urothelium by means of diathermocoagulation and cryotherapy have been encouraging. Side-firing laser, which produces necrotic coagulation followed by reconstitution of normal functional epithelium, was significantly more successful than end-firing and was associated with a 78% success rate. These results are encouraging in patients who are usually refractory to medical therapy.

Functional outcome and quality of life in anorectal malformations.
Goyal A, Williams JM, Kenny SE, Lwin R, Baillie CT, Lamont GL, Turnock RR
J Pediatr Surg. 2006 Feb;41(2):318-22.
BACKGROUND/PURPOSE: The aim of this study was to assess the early functional outcome and quality of life (QOL) in children with anorectal malformations. METHODS: Children treated for anorectal malformations (ARMs) from 1994 to 2000 were evaluated if 4 years or older. Primary outcome measures were bowel function score, assessed by functional outcome questionnaire, and QOL using the Pediatric Quality of Life Inventory (PedsQL 4). The secondary outcome measure was age at potty training. Twenty healthy children

were used as controls for functional outcome and age at potty training. Data are reported as mean (SD) unless otherwise stated. RESULTS: Eighty children were evaluated during the study period. The mean age at follow-up was 82 months (18.7). The response rate was 76.3% (58/76) for bowel function and 77.5% (62/80) for QOL questionnaires. Functional outcome score (maximum 20) decreased significantly with increasing severity of the ARM (male perineal fistula, 16 [3]; female perineal fistula, 15 [3]; rectourethral fistula, 12 [4]; vestibular fistula, 13 [3.5]; bladder neck fistula, 6 [2]; analysis of variance, P = .001). However, there was no difference in QOL between patients with ARM and controls. There was no correlation between age and either bowel function score (Pearson r2 = 0.06) or QOL (Pearson r(2) = 0.12). Affected children took significantly longer to achieve potty training for bladder (35 [13.8] months vs 26 [8.7] months for controls [t test, P = .005]) and bowels (38 [16] months vs 25 [7] months [t test, P = .001]). CONCLUSION: Children with ARMs have significantly worse bowel function than their peers, depending on the type of lesion. Despite these findings, QOL was not significantly impaired. No correlation was demonstrated between age and either functional outcome or QOL.

Transanal endoscopic-assisted proctoplasty--a novel surgical approach for individual management of patients with imperforate anus without fistula.
Pakarinen MP, Baillie C, Koivusalo A, Rintala RJ
J Pediatr Surg. 2006 Feb;41(2):314-7.

The right test for colon cancer screening?
Wei JT, Sandler RS
Gastrointest Endosc. 2006 Mar;63(3):459-60.

Chronic anal fissure: 1994 and a decade later-are we doing better?
Floyd ND, Kondylis L, Kondylis PD, Reilly JC
Am J Surg. 2006 Mar;191(3):344-8.
BACKGROUND: Debate exists regarding whether the use of topical agents and Botox injections are as efficacious as sphincterotomy for the treatment of chronic anal fissure. METHODS: A retrospective review was performed to assess changes in management and outcomes of chronic anal fissure care in a community based colorectal practice between the individual years 1994 and 2003. RESULTS: Forty-seven patients in 1994 underwent lateral partial internal sphincterotomy and had a 100% healing rate. Thirty-nine patients were treated in 2003, with 32 undergoing Botox injection and 7 undergoing sphincterotomy initially. Of the Botox patients, 35% had recurrence, and 7 subsequently required sphincterotomy. Ultimate healing rates in 2003 were 97%. Time to heal was markedly prolonged in 2003 compared with 1994. Complication rates were similar, and there was no lifestyle-altering incontinence. CONCLUSIONS: Our review documents a significant change in the community approach to chronic fissure management. The addition of multiple treatment modalities prolongs time to healing from initial evaluation, but they allowed 72% of patients to avoid the need for permanent sphincter division while maintaining ultimate rates of healing.

Nonsurgical treatment of chronic anal fissure: nitroglycerin and dilatation versus nifedipine and botulinum toxin.
Tranqui P, Trottier DC, Victor C, Freeman JB
Can J Surg. 2006 Feb;49(1):41-5.
BACKGROUND: Surgical sphincterotomy for chronic anal fissure can cause fecal incontinence. This has led to the investigation of nonsurgical treatment options that avoid permanent damage to the internal anal sphincter. METHODS: We conducted a retrospective, ongoing chart review with telephone follow-up of 88 patients treated for chronic anal fissure between November 1996 and December 2002. During the first half of the study period, patients were treated with topical nitroglycerin and pneumatic dilatation. With the availability of new therapies in June 1999, subsequent patients received topical nifedipine and botulinum toxin injections (30-100 units). Lateral anal sphincterotomy was reserved for patients who failed medical treatment. RESULTS: In 98% of patients the fissure healed with conservative nonsurgical treatment. The combination of nifedipine and botulinum toxin was superior to nitroglycerin and pneumatic dilatation with respect to both healing (94% v. 71%, $p < 0.05$) and recurrence rate (2% v. 27%, $p < 0.01$). There was no statistical difference between the number of dilatations and botulinum toxin injections needed to achieve healing. Three patients who received botulinum toxin reported mild transient flatus incontinence. At an average telephone follow-up of 27 months, 92% of patients reported having no pain or only mild occasional pain with bowel movements. CONCLUSIONS: Chronic anal fissures can be simply and effectively treated medically without the risk of incontinence associated with sphincterotomy. Topical nifedipine and botulinum toxin injections are an excellent combination, associated with a low recurrence rate and minimal side effects.