RESUMO DE ARTIGOS

Cummings BJ, Keane TJ, O'Sullivan B, Wong CS, Catton CN - Epidermoid anal cancer: Treatment by radiation alone or by radiation and fluorouracil with and without mitomycin. C Int J Radiat Oncol Biol Phys 1991; 21(5): 1115-25.

Trabalho prospectivo realizado no Departamento de Radioterapia (Princess Margaret Hospital, Toronto, Canadá) com o objetivo de avaliar três tipos de tratamento (Radioterapia, RT com 5-Fu e RT com 5-FU e Mitomicina C) para o câncer epidermóide de canal anal. Foram tratados 192 pacientes. A sobrevida global de cinco anos foi de 69% (RT = 68%, FUMIR = 76% e FURT = 64%). O controle de lesão tumoral foi efetivo em 56% (32/57) do grupo de RT, em 86% (59/69) do grupo FUMIR e em 60% (39/65) do grupo FURT. Metástases ganglionares foram controladas em 33 de 38 (87%) pacientes. A função anorretal foi preservada em 88%. Os autores concluem que o melhor tratamento é a associação de radioterapia (4.000 rads) com quimioterapia (5 FU + Mitomicina C). *J Reinan Ramos.*

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Norfleet RG, Ryan ME, Wyman JB, Rhods RA, Nunez JF, Kirchner JP, Parent K - Barium enema versus colonoscopy for patients with polyps found during flexible sigmoidoscopy. Gastrointest Endosc 1991; 37(J): 531-4.

Este estudo prospectivo foi realizado no Marshfield Medical Center, em Wisconsin - EUA. O objetivo foi comparar a eficácia do enema opaco realizado por radiologista experiente com a eficácia da colonoscopia realizada por endoscopista experiente, para detectar pólipo sincrônico no cólon proximal, em pacientes com diagnóstico de pólipo após sigmoidoscopia flexível. Foram examinados 3.006 pacientes e diagnosticado pólipo de diâmetro maior que 0,5 cm em 147 (5%) dos 114 pacientes que completaram o protocolo, e 46 (40%) tinham lesão sincrônica no cólon proximal. O enema opaco simples não diagnosticou pólipo em 13 pacientes (Sensibilidade = 13%), enquanto o enema opaco com duplo contraste diagnosticou em oito (sensibilidade = 26%). Os autores preconizam o uso de colonoscopia para investigação de pólipo neoplásico sincrônico e reserva o enema opaco com duplo contraste para os casos em que a colonoscopia for incompleta. *J Reinan Ramos.*

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Antal SC, Kouacs ZG, Feigenbaum V, Engelberg M - Obstructing carcinoma of de left colon: Treatment by extended right hemicolectomy. Int Surg 1991; 76(3): 161-3.

Este trabalho foi realizado no Departamento de Cirurgia do Hospital Carmel (Haifo, Israel) e avalia os resultados da colectomia direita alargada para o tratamento dos tumores obstrutivos do cólon esquerdo em 40 pacientes (grupo III). No grupo I (16 pacientes), submetidos a tratamento convencional a mortalidade operatória foi de 25%, tempo de internação 54 dias e somente seis completaram o referido tratamento. No Grupo II a mortalidade pós-operatória foi zero e o tempo médio de internação foi de 15 dias. *J. Reinan Ramos.*

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Resumo de artigos da revista "Diseases of the Colon & Rectum"

Fleschman JW, Dreznik Z, Meyer K, Fry RD, Carney R, Kodner IJ. Outpatient protocol for biofeedback therapy of pelvic floor outlet obstruction. Dis Colon Rectum 1992; 35: 1-7.

Pelvic floor outlet obstruction is a rare cause of severe constipation. Anal myectomy, subtotal colectomy, and medical therapy have limited success. The purpose of this study was to develop a short outpatient treatment using biofeedback techniques. Nine patients with severe constipation and straining resulting from pelvic floor outlet obstruction underwent complete investigation of the pelvic floor musculature and anal sphincter mechanism. Patients were unable to expel a 60-cc rectal balloon and had nonrelaxing puborectalis on defecography. The treatment protocol utilized anal surface electromyography to document improper straining and retrain pelvic floor muscles

to relax during defecation. Sensory retraining with a rectal balloon, behavioral relaxation techniques, and defecation of simulated stool using a 120-cc Metamucil[R] (Procter & Gamble, Cincinnati, OH) slurry in the rectum allowed re-establishment of normal defecation in all nine patients. Repeat training was required in three patients during follow-up. Treatment of pelvic floor outlet obstruction with outpatient retraining techniques is possible. (Key words: Biofeedback; Nonrelaxing puborectalis; Balloon expulsion; Constipation, Defecographyl)

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Rasmussen O Ø, Sørensen M. Tetzschner T, Christiansen J. - Anorectal pressure gradient in patients with anal incontinence. Dis Colon Rectum 1992; 35: 8-11.

Anorectal pressures in patients with fecal incontinence have been investigated. With anal manometry, 34 percent of patients with fecal incontinence had maximal resting pressure and 39 percent had maximal squeeze pressure within the normal range. When a pressure gradient was calculated as the pressure difference between maximal resting pressure and rectal pressuring during filling of a rectal balloon, patients with fecal incontinence could be better distinguished from controls: 20 percent of patients with fecal incontinence had values within the normal range when the rectal pressure at the earliest defecation urge was used ($P < 0.05$), and 12 percent had values within the normal range when the rectal pressure at maximal tolerable volume was used ($P < 0.01$). Anorectal pressure gradient measurements seem to distinguish patients with fecal incontinence from controls better than maximal resting pressure or maximal squeeze pressure alone. (Key words: Anal incontinence; Anal manometry; Rectal compliance; Anal physiology)

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Jørgensen T, Rafaelson S - Gallstones and colorectal cancer there is a relationship, but it is hardly due to cholecystectomy. Dis Colon Rectum 1992; 35: 24-28.

The prevalence of gallstone disease in 145 consecutive patients with colorectal cancer was compared with gallstone prevalence in 4,159 subjects randomly selected from a population. The group of patients had a significantly higher prevalence of gallstone disease than the population (odds ratio = 1.59; 95 percent confidence limits 1.04-2.45), whereas cholectectomies occurred with equal frequency in the two groups. There was a nonsignificant trend toward more right-sided cancers in patients with gallstones than in patients without. These results, together with available literature, give substantial evidence for and association between gallstones and colorectal cancer, an association which is not due to cholecystectomy being a predisposing factor to colorectal cancer. Sporadic findings of an association between cholecystectomy and colorectal cancer can be explained by the above relationship. (Key words: Colorectal cancer; Gallstones; Cholecystectomy; Epidemiology)

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Ambroze WL Jr, Dozois RR, Pemberton JH, Beart RW Jr, Ilstrup DM - Familial adenomatous polyposis: results following ileal pouch-anal anastomosis and ileorectostomy. Dis Colon Rectum 1992; 35: 12-15.

To compare the clinical and functional results of ileorectostomy (IR) and ileal pouch-anal anastomosis (IPAA) in patients with familial adenomatous polyposis (FAP), we reviewed the results of 94 IPAA patients and 21 IR patients who were operated upon between 1978 and 1988. The groups were similar with respect to age and sex. None of the patients died postoperatively. Postoperative complications occurred in 28 percent of the IPAA group and in 17 percent of the IR group ($P > 0.1$). Seven percent of IPAA patients described symptoms compatible with pouchitis. Sixty-one percent of IR patients required subsequent fulguration of rectal polyps at least once. IR patients has a mean (± SD) of four (± 2) stools per day, while IPAA patients had five (± 2) stools per day ($P > 0.05$). No significant difference in daytime soiling was present between IR (6 percent) and IPAA (4 percent). Nighttime spotting was also similar between the two groups. Nighttime soiling, however, was reported by 4 percent of IPAA patients but not by IR patients ($P < 0.05$). One IPAA patient (1 percent) required pouch excision for a desmoid tumor, while two IR patients (11 percent) required protectomy and ileostomy for recurrent dysplastic polyps ($P < 0.05$). Adhesions and a shortened ileal mesentery prevented the construction of an ileoanal procedure in these latter patients. In conclusion, the postoperative complication rate and functional results are similar after IR and IPAA in patients with FAP; however, IR does not radicate rectal polyps and may indeed preclude IPAA for those requiring subsequent proctectomy. (Key words: Ileorectostomy; Ileal pouch-anal anastomosis; Familial polyposis)

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Schaldenbrand JD, Siders DB, Zainea GG, Thieme ET - Preoperative radiation therapy for locally advanced carcinoma of the rectum: clinicopathologic correlative review. Dis Colon Rectum 1992; 35: 16-23.

During a three-year period, 27 patients with the diagnosis of adenocarcinoma of the rectum were referred to the Department of Radiation Oncology and accepted for preoperative radiation therapy. The referral was based solely on endoluminal ultrasound staging (ELUS) of an unfavorable lesion (n = 12) or ultrasound staging with the clinical impression of a fixed (n = 9) or tethered (n = 6)

lesion. High-dose (4,500-5,600 cGy) preoperative radiation was followed by definitive surgery in four to seven weeks. The gross and microscopic pathology observed in 23 specimens of this group of patients formed the basis of this report. The microscopic findings that persist after radiation allow an accurate determination of the tumor stage existing prior to radiation. Correlations are made between the original evaluation of the tumor, including ELUS, and the microscopic findings. ELUS accurately predicted the depth of tumor penetration in 20 to 23 of 23 specimens and the lymph node status in 16 of 23 specimens. In the context of the pathologic findings as described, downstaging was not demonstrated. Following this radiation protocol, a marked reduction in tumor mass was demonstrated, as well as evidence of tumor destruction in the remaining mass, varying from minimal to total elimination of viable tumor. The concept that radiation fibrosis exists only as it approximates or replaces neoplasm is offered. In the context of this pathologic finding, improved resectability occurred for certain tumors. It is recommended that ELUS be added to the clinical evaluation of rectal adenocarcinoma. It is also recommended that the pathologic findings described be used when reporting the stage of rectal tumors that have received high-dose preoperative radiation therapy. (Key words: Rectum cancer; Preoperative radiation; Pathology)

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Tsukada K, Church JM, Jagelman DG, Fazio VW, McGannon E, George CR, Schroeder T, Lavery I, Oakley J - Noncytotoxic drug therapy for intra-abdominal desmoid tumor in patients with familial adenomatous polyposis. Dis Colon Rectum 1992; 35: 29-33.

Forty of 416 patients with familial adenomatous polyposis were noted to have intra-abdominal desmoid tumors, and a subgroup of 16 treated with noncytotoxic drug therapy. Drugs used were sulindac (14 patients), sulindac plus tamoxifen (3 patients), indomethacin (4 patients), tamoxifen (4 patients), progesterone (DEPO-PROVERA^{R}; Upjohn Co., Kalamazoo, MI) (2 patients), and testolactone (1 patient). Therapy with these drugs for continuous periods of six months or more resulted in three complete and seven partial remissions. When treated patients were compared with untreated patients (n = 12), there were significant benefits for the treated group, both in reduction of desmoid size and in improvement of symptoms, despite the inherent selection bias against this. Sulindac was only drug used in enough patients to permit independent evaluation of its effect, with one complete and seven partial reductions of tumor size. Some patients had a delayed response sulindac, with tumor shrinkage occurring after an initial period of tumor enlargement. When using sulindac for the treatment of desmoid tumors, this phenomenon should be considered. (Key words: Intra-abdominal desmoid tumor; Familial adenomatous polyposis; Nonsteroidal anti-inflammatoryu drugs; Antiestrogen drugs; Prostaglandin synthesis)

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Inoue T, Mori M, Shimono R, Kuwano H, Sugimachi K - Vascular invasion of colorectal carcinoma readily visible with certain stains. Dis Colon Rectum 1992; 35: 34-39.

We made use of hematoxylin and eosin (H&E) stain, Verhoeff van-Gieson stain for elastic tissue (EVG), and factor VIII-related antigen (FVIII-RA) to stain tissues excised from 94 patients with colorectal carcinoma. Of these 94, 49 died of disease within two years (Group I), and 45 survived for five years or longer (Group II) after surgery. In the tissues from both groups, the use of EVG stain revealed a higher incidence of vascular invasion than was seen with H&E stain. In Group I, the rates were 28.6 patients and 61.2 percent with H&E and EVG, respectively, and those in Group II were 4.4 percent and 31.3 percent, respectively. Conversely, the FVIII-RA stain showed a decrease in the incidence of vascular invasion in both groups. In Group I, when vascular invasion was examined in EVG-stained tissues, the incidence was 81.3 percent in cases of hematogenous metastases and 23.5 percent in those without hematogenous metastases ($P < 0.01$). These differences were not evident with H&E. When observing the site of vascular invasion in tissues of the colorectal wall stained with EVG, intramural and extramural types of vascular invasion were seen in 20 percent and 80 percent of cases in Group I and 93 in percent and 7 percent of those in Group II, respectively. Thus, not only the frequency, but also the site, of vascular invasion into the colorectal wall evidenced with EVG stain provides a more precise prediction of the recurrence of hematogenous metastases. (Key words: Vascular invasion; Colorectal cancer; Metastasis; Elastic stain; Factor VIII-related antigen)

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Poppen B, Svenberg T, Bark T, Sjögren B, Rubio C, Drakenberg B, Slezak P. Colectomy-proctomucosectomy with S-pouch: operative procedures, complications, and functional outcome in 69 consecutive patients. Dis Colon Rectum 1992; 35: 40-47.

Sixty-nine patients were operated upon in a three-stage procedure. Early complications occurred in 29 percent after colectomy-ileostomy, in 25 percent after proctomucosectomy with ileoanal anastomosis and loop ileostomy, and in 9 percent after closure of loop ileostomy. Only three of these were considered serious. Seventy-one percent of the patients were readmitted into the hospital between the three operations or after the last one. Total hospital stay was 49 days (median); the range was 20 to 345 days. Reconstruction of the reservoir was performed in four pati-

ents owing to defecation problems, with satisfying functional results in two patients, while two emptied by catheter. There was no postoperative mortality or pelvic sepsis, and no pouches were excised. Ileostomy was re-established in two patients. At histopathologic reevaluation of colectomy specimens, the diagnosis was changed from ulcerative colitis to Crohn's disease in three patients and to indeterminate colitis in five. Median follow-up was 4.3 years. Continent anal defecation without ileostomy was achieved in 67 patients (97 percent), with 4.1 bowel movements per day and 0.6 per night. Perfect continence was achieved in 55 percent in the daytime and in 43 percent at night. The low rate of reservoir-threatening compplications is attributed to the three-stage procedure and the technical details in the surgical procedures. (Key words: Colectomy; Familial polyposis coli; Ileoanal anastomosis; Pelvic pouch; Proctomucosectomy; Ulcerative colitis)

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Madden MV, Kamm MA, Nicholls RJ, Santhanam AN, Cabot R, Speakman CTM - Abdominal rectopexy for complete prolapse: prospective study evaluating changes in symptoms and anorectal function. Dis Colon Rectum 1992; 35: 48-55.

The effect of abdominal rectopexy on bowel function is difficult to assess in retrospective studies because preoperative bowel habit cannot be determined accurately. This study examined bowel symptoms and physiologic tests of anorectal function prospectively in 23 patients before and at three months after rectopexy. Rectopexy eliminated complete prolapse in all and stopped bleeding in 16 of 18 patients. Incontinence improved significantly. Constipation (< 3 bowel actions per week or straining for more than 25 percent of defecation time) was relieved in 4 of 11 affected patients but developed in 5 of the 12 who were not constipated preoperatively. Since the median bowel frequency was 21 motions per week before surgery and 17 afterward, the main determinant of constipation was straining. Abdominal pain was relieved after rectopexy in 6 of 12 patients but developed in 3 of 13 who were pain-free before surgery. Three patients (13 percent) had a first-degree relative with rectal prolapse. Perineal descent decreased significantly. Maximal anal resting pressure increased significantly, but this did not correlate significantly with improved continence. Twenty-one patients (91 percent) could expel a 50 ml balloon preoperatively; 18 of those 21 could still do so postoperatively. The two patients who could not expel the balloon preoperatively were able to do so postoperatively. This study shows that rectal prolapse is associated with profoundly abnormal defecation and abdominal pain. While abdominal rectopexy improved continence, it may improve or worsen other bowel symptoms, including constipation. (Key words: Constipation; Defecation; Incontinence; Rectal prolapse; Rectopexy)

Sheik F, Khubchandani IT, Rosen L, Sheets JA, Stasik JJ - Is anorectal surgery on chronic dialysis patients risky? Dis Colon Rectum 1992; 35: 56-58.

Patients on chronic hemodialysis for end-stage renal disease (ESRD) may develop anorectal problems necessitating surgery. From January 1984 to December 1987, 18 ESRD patients underwent anorectal surgery. During this period, a mean of 215 patients underwent dialysis. Patients with ESRD present with characteristic problems: chronic constipation, need for dialysis pre- and postoperatively with heparin infusion, anemia, anticoagulation secondary to the consequences of uremia, and significant medical problems including coronary artery disease, diabetes mellitus, hypertension, and chronic obstructive pulmonary disease (COPD). Two patients had concomitant anal fissure, two had fistula-in-ano, and one had an acute perianal abscess. In two patients, the postoperative course was complicated by hemorrhage and, in one patient, by abcess formation. There wsas no delay in wound healing compared with a cohort group. The essentials of perioperative management are discussed with respect to timing of dialysis, methods of anesthesia and pain management, coagulation screening, and complications. Patients on well-managed chronic dialysis will tolerate anorectal surgery without undue jeopardy. (Key words: Anorectal surgery; Hemodialysis; Perioperative management)

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Cuesta MA, Meijer S, Derksen EJ, Boutkan HJ, Meuwissen SGM - Anal sphincter imaging in fecal incontinence using endosonography. Dis Colon Rectum 1992; 35: 59-63.

Clinical anal examination, manometry (resting and squeeze pressures), and single-fiber electromyography were compared with endosonography of the anal sphincters in 14 patients with fecal incontinence. Technical aspects of the procedure and normal imaging of the puborectal muscle and both sphincters were defined. Defects in both sphincters were seen in nine patients. The defect is visualized as a clear discontinuity in the muscular ring. Compared with the conventional studies, anal endosonography gave significant information in six patients (four male patients after perianal surgery and two women), showing sphincter defects in five patients and integrity of the sphincters in another one. This information obtained by endosonography was important in understanding the type and extension of the lesion and deciding upon the surgical repair. Anal endosonography is an imaging technique of the spincters that can assess their integrity in fecal incontinence. (Key words: Ultrasound; Anal sphincters; Fecal incontinence; Manometry; Electromyography)

Sroujieh AS, Farah GR, Jabaiti SK, El-Muhtaseb HH, Qudah MS, Abu-Khalaf MM - Volvulus of the sigmoid colon in Jordan. Dis Colon Rectum 1992; 35: 64-68.

This report discusses 27 patients with sigmoid volvulus treated at Jordan University Hospital (JUH) during a 15-year period. These patients represented 4.7 percent of adult patients treated for intestinal obstruction in the same period. The average age was 54.5 years, and none of the patients was institutionalized. Twenty-five patients presented with acute symptons, and two had chronic symptoms. Sigmoidoscopic detorsion was achieved in 15 patients. Emergency resection was required in two of these patients: for the development of gangrene a few hours after detorsion in one patient and for recurrence within 24 hours in the other despite the presence of a rectal tube. Early recurrence occurred in two other patients and was managed endoscopically. Emergency surgery was performed in 10 other patients: for a failed endoscopic detorsion in three patients, for ulcerated and bleeding mucosa forecasting gangrene in another, and as a primary treatment in six patients who were either misdiagnosed or suspected to have gangrenous bowel. Elective resection was performed in 13 patients. The mortality rate was 15 percent (4/27) for the whole series and 33.3 percent (1/3) for those with gangrenous bowel. (Key words: Sigmoid volvulus; Volvulus; Obstruction; Intestinal; Colonic)

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Strand JA, Yarbrough LW - Straight ileoanal anastomosis after longitudinal strip myectomy in the swine model. Dis Colon Rectum 1992; 35: 69-74.

In an attempt to improve the function of the straight ileoanal anastomosis, an experimental study was performed using the swine model. The terminal ileum was altered by completely removing two longitudinal strips of muscle prior to performing a straight ileoanal anastomosis. The intent of the study was to determine whether muscle stripping was technically possible and whether bowel thus treated would remain viable to passively form a pelvic reservoir. The lenght of time required for formation of the reservoir was noted. All animals survived the procedure to allow evaluation. The muscle stripping was not difficult to perform. Viability was not a problem since the myectomy animals thrived well and demonstrated continence; weight gain, and reservoir formation. The results are encouraging. It appears that strips of muscularis propria can be removed from the terminal ileum without jeopardizing its viability. This seems to disrupt sufficiently the tonus of the bowel to allow better function of the straight ileonal anastomosis through formation of a passive pelvic reservoir within a month's time in the swine model, and it may have application in the human. (Key words: ileonal anastomosis; Rectal pouch; Myectomy; Swine)

Coco C, Magistrelli P, Granone P, Roncolini G, Picciocchi A _ Conservative surgery for early cancer of the distal rectum. Dis Colon Rectum 1992; 35: 131-136.

From 1967 through 1988, 36 patients underwent local excision of a distal rectal cancer as an initial operative procedure with curative intent. A diagnostic preoperative protocol was performed to assess the hystologic grade of the tumor, the depth of penetration in the rectal wall, and the presence of positive lymph nodes or distant metastases. All patients had a transanal local excision performed under general anesthesia. If preoperative criteria were not confirmed by hystopathologic specimen examination, a major operation was advised. To increase the chance of local control, external adjuvant radiotherapy was used in T2 cancers. Postoperative mortality was 0 percent. The postoperative complication rate was 9.3 percent. The observed local recurrence rate was 3 percent, and the rectal cancer-specific death rate was 6 percent. We compared these results with those obtained in 70 concomitant patients operated on by us employing a traditional resection for Dukes'A rectal cancer. There are no statistically significant differences between groups. In light of our findings, a policy of curative local excision is justified in accurately selected cases of distal rectal cancer. (Key words: Rectum; Rectal cancer; Conservative treatment; Local excision)

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Orkin BA, Soper NJ, Kelly KA, Dent J - Influence of sleep on anal sphincteric pressure in health and after ileal pouch-anal anastomosis. Dis Colon Rectum 1992; 35: 137-144.

Fecal incontinence at night may be a disturbing consequence of ileal pouch-anal anastomosis (IPAA). The hypothesis was that decreases in anal canal resting pressure occur as sleep deepens and that the decreases are more profound in pouch patients with incontinence than in controls. Using a sleeve catheter assembly for recording intraluminal anal canal pressure and polysomnographic recordings of sleeps stages, progressive decreases in anal canal resting pressure with deepening sleep occurred in 11 healthy controls (mean ± SEM: 57 ± 3 mm Hg to 43 ± 3 mm Hg: $P < 0.05$) and in 11 patients after IPAA (55 ± 3 mm Hg to 42 ± 4 mm Hg; $P < 0.05$). Minute-to-minute variations in mean pressure were also found in both controls and IPAA patients, and they were greater at night in patients ($P < 0.05$), except during rapid eye movement (REM) sleep. In three patients, resting pressure during REM sleep decreased markedly to 31 ± 8 mm Hg. This decrease plus the variations in pressure during REM sleep led to incontinence. In conclusion, decreases in anal resting pressure coupled with marked minute-to-minute variations in pressure during sleep occurred in controls and in patients after IPAA and, when profound, led to nocturnal fecal inconti-

nence in some patients. (Key words: Anal sphincter; Anal canal; Anal motility; Anal pressures; Anus; Fecal incontinence; Sleep; Ileal pouch; Pelvic reservoir)

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Wexner SD, Cheape JD, Jorge JMN, Heymen S, Jagelman DG - Prospective assessment of biofeedback for the treatment of paradoxical puborectalis syndrome. Dis Colon Rectum 1992; 35: 145-150.

Eighteen patients with chronic constipation were diagnosed as having paradoxical puborectalis contraction (PPC) as the cause for their constipation. The diagnosis of PPC was made after office evaluation, colonic transit study, manometry, cinedefecography, and electromyography (EMG). These 18 patients had a mean duration of symptons of 26.9 years; none of these patients had unassisted bowel movements. Fourteen patients had a mean of 4.6 laxative-induced bowel evacuations per week, and 11 patients had a mean of 4.4 enema-induced bowel evacuations per week. Patients underwent a mean of 8.9 one-hour EMG-based biofeedback. At a mean follow-up of 9.1 (range, 0.5-12) months, these 18 patients had a mean of 7.3 unassisted bowel actions per week ($P < 0.0001$). In adition, persistent laxative use was reported by only two patients, and, in both cases, this was once a week or less ($P < 0.001$). Similary, enema use was reported by only three patients, one once weekly and the other two thrice weekly ($P < 0.002$). No biofeedback-related complications were identified. EMG-based biofeedback is a valuable technique associated with an 89 percent success rate in the treatment of PPC. (Key words: Biofeedback; Constipation; Anismus; Pelvic outlet obstruction; Paradoxical puborectalis contraction; Spastic pelvic floor syndrome)

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Stabile G, Kamm MA, Philips RKS, Hawley PR, Lennard-Jones JE - Partial colectomy and coloanal anastomosis for idiopatic megarectum and megacolon. Dis Colon Rectum 1992; 35: 158-162.

Adult patients with an idiopathic megarectum or megacolon can experience severe constipation requiring surgical treatment. Some of these patients have a proximal colon of normal diameter, with dilatation involving only the left or distal colon and rectum. The results of partial colonic and rectal resection with coloanal anastomosis in such patients have been reviewed. Seven patients (two female and five male) underwent a coloanal anastomosis over a seven-year period. The median age at operation was 19 years, the mean age at onset of symptoms was five years, and the mean follow-up period was one year. Five patients experienced a return to normal bowel frequency with the loss of most symptoms. One patient has an ileostomy because of persistent constipation after the procedure. One subject died because of postoperative bleeding from the anastomosis and subsequent cardiac and respiratory complications. This operation may have a place in the treatment of severe constipation caused by idiopathic megarectum and megacolon, but careful preoperative motility studies and meticulous attention to operative technique are required for a good outcome. (Key words: Megarectum; Megacolon, Constipation; Coloanal)

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Goldman S, Skoog L, Wilking N - Immunocytochemical analysis of receptor for estrogen and progesterone in fine needle aspirates from anal epidermoid carcinoma. Dis Colon Rectum 1992; 35: 163-165.

Fifteen patients with anal epidermoid carcinoma were examined with percutaneous or transanorectal fine needle aspiration (FNA) cytology. Aspirates from all patients allowed cytologic verification of the diagnosis. Estrogen receptor (ER) and progesterone receptor (PgR) were analyzed using an immunohistochemical technique well adapted for steroid receptor analysis in hormonedependent carcinomas. Neither ER nor PgR could be detected in any of the aspirates. This finding is somewhat unexpected since there is a strong female predominance in this tumor type. However, our findings do not negate that sex steroid hormones may indirectly play a role in the tumorigenesis of anal epidermoid carcinoma. (Key words: Aspiration cytology; Estrogen and progesterone receptors; Anal epidermoid carcinoma)

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Opelka FG, Timmcke AE, Gathright JB Jr, Ray JE, Hicks TC - Diminutive colonic polyps: an indication for colonoscopy. Dis Colon Rectum 1992; 35: 178-181.

A prospective study investigated the significance of solitary diminutive colonic polyps discovered during screening flexible sigmoidoscopy. Eighty-two patients with a solitary diminutive polyp (_ 5 mm) underwent colonoscopy after cold biopsy of the index polyp. Of the patients with adenomatous index polyps, 42.5 ± percent had proximal neoplastic polyps. Of the patients with hyperplastic index polyps, proximal neoplastic polyps were found in 38.9 percent. These data suggest that diminutive polyps identified during flexible sigmoidoscopy, whether adenomatous or hyperplastic, place the patient in the intermediate risk group for colorectal neoplasia. We recommended that any patient with polyps seen during screening sigmoidoscopy, regardless of histopathology, should undergo colonoscopy. (Key words: Colonoscopy; Screening; Hyperplastic polyps)

Senagore A, Milson JW, Walshaw RK, Dunstan R, Chaudry IH - Does a proximal colostomy affect colorectal anastomotic healing? Dis Colon Rectum 1992; 35: 182-188.

Fecal diversion has been implicated as an etiologic factor in anastomotic stenosis following colorectal surgery, particularly following the use of circular anastomotic stapling devices. However, experimental confirmation of the effects of fecal diversion on anastomotic healing is virtually nonexistent. The purpose of this study was to serially evaluate colorectal anastomotic healing with proximal colostomy (COL) and without (CON; control) using two anastomotic techniques in a porcine model. Fifty-two (28 CON; 24 COL) mixed-breed female pigs had colorectal anastomoses using either a two-layer hand-sewn (HS) or an EEA (U.S. Surgical Corporation, Norwalk, CT) circular stapled (CS) technique. Anastomotic blood flow was measured using lase Doppler velocimetry (LDV). At second surgery (5, 11, 60, or 120 days post-operatively), the following data were collected: repeat LDV, gross and microscopic anastomotic inflammatory scores, anastomotic diameter, and bursting pressure. There were no significant differences in anastomotic blood flow (LDV), inflammatory scores, or incidence of leak or stenosis between the CON and COL groups or between anastomotic techniques. Bursting pressure was significantly lower for the COL group at day 11 but not any other postoperative day (POD). Proximal colostomy does not appear to exert adverse effects on colorectal anastomotic healing. The choice of colorectal anastomotic technique should not be influenced by the need for proximal colostomy. (Key words: Fecal diversion and anastomotic healing; Proximal colostomy and anastomotic healing; Colorectal anastomotic technique and proximal colostomy).

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The Cooperative Study Group of Surgical Adjuvant Immunochemotherapy for Cancer of Colon and Rectum (Kanagawa) - *Mitomi T, Tsuchiya S, Iijima N, Aso K, Suzuki K, Nishiyama K, Amano T, Takahashi T, Murayama N, Oka H, Oya K, Noto T, Ogawa N* - Randomized, controlled study on adjuvant immunochemotherapy with PSK^R in curatively resected colorectal cancer. Dis Colon Rectum 1992; 35: 123-130.

A randomized, controlled trial of adjuvant immunochemotherapy with PSK^R (Kureha Chemical Industry Co., Tokyo, Japan) in curatively resected colorectal cancer was studied in 35 institutions in the Kanagawa prefecture. From March 1985 to February 1987, 462 patients were registered. Four hundred forty-eight of those patients (97.0 percent) satisfied the eligibility criteria. The control group received mitomycin C intravenously on the day of and the day after surgery, followed by oral 5-fluorouracil (5-FU) administration for over six months. The PSK^R group received PSK^R orally for over three years, in addition to mitomycin C and 5-FU as in the control group. At the end of February 1990, the median follow-up time for this study was four years (range, three to five years). The disease-free survival curve and the survival curve of the PSK^R group were better than those of the control group, and differences between the two groups were statistically significant (disease-free survival, P = 0.013; survival, P = 0.013). These results indicate that adjuvant immunochemotherapy with PSK^R was beneficial for curatively resected colorectal cancer. (Key words: PSK^R; Adjuvant immunochemotherapy; Colorectal cancer; Randomized, controlled study).