Selected Abstracts

Upper Gastrointestinal Trauma; Analysis of 45 Cases of Gastric, Duodenal or Pancreatic Injury. David Bergqvist, Hans Hedelin, Goran Karisson) and others. Acta Chir. Scand., 1981, 147:637-643.

During a 30-year interval 45 of 1,407 patients with trauma to the abdomen had injury to the upper gastrointestinal tract. Fifteen patients had trauma to the stomach, which was nonpenetrating in four patients. Associated abdominal injuries occurred in 12 of the 15 patients. All patients had clinical signs of intra-abdominal trauma, and all underwent exploratory laparotomy within three hours of admission to the hospital. Fourteen patients had simple perforations which were managed by two-layer closure. Six patients, all with multiple intra-abdominal injuries, died.

The duodenum was damaged in 15 patients, one of whom sustained a penetrating injury. Most lesions were in the third and fourth portions of the duodenum. One patient died during resuscitation. Because of clear signs of intra-abdominal injury, nine patients had exploratory laparotomy within a few hours after admission to the hospital. Intraoperative findings suggesting duodenal injury included periduodenal hematoma in nine patients and bile-stained peritoneal fluid in four patients. Simple closure of duodenal perforations was performed in ten patients. The mortality among patients with trauma to the duodenum was 20 per cent.

Pancreatic injury occurred in 18 patients, three of whom had penetrating trauma. Fifty per cent of the patients had other intra-abdominal injuries. Ten patients had pancreatic contusions. Three additional patients experienced post-traumatic pancreatis. Disruption of the pancreas occurred in five patients, four of whom died. Another patient with a pancreatic contusion and multiple associated intra-abdominal injuries also died. It was concluded that, in patients with trauma to the upper gastrointestinal tract, early diagnosis and operative intervention and thorough exploration of the abdomen are essential ingredients of successful management.

-Clayton H. Shatney.

Indications and Limitations of the Surgical Management of Hemorrhoids (Indikationen und grenzen der chirurgischen Behandlung von Hamorrhoiden). F. Nothieger. Praxis, 1982, 71:193-195.

SURGICAL TREATMENT of hemorrhoids carries the lowest risk of recurrence and is applicable for: bleeding, moist hemorrhoids with prolapse, particularly in younger patients; large hemorrhoids or those associated with other anorectal pathologic conditions requiring surgical correction, and acutely thrombosed hemorrhoids.

Of the variously described hemorrhoi4ec-tomy procedures, all involve resection of the ectatic nodule and ligation of the afferent vessels. The trianglur resection of Milligan and Morgan allows the resulting defect to be left open. The author prefers this technique to the closed technique of hemorrhoidectomy. The technique of Parks, which involved the excision of excess mucosa from the upper portion of the anal canal and the lower portion of the rectum is not only a resection but also a form of reconstruction. It was believed that the tendency to stenosis is greater with this procedure. In any operation, the main nodules should be excised, the afferent vessel should be ligated, and the anoderm should be preserved. An elective operation may be contraindicated in elderly patients with associated illness, since some nonsurgical forms of treatment are acceptable. If there is already a history of incontinence or sphincteric laxity, an operation may exacerbate these symptoms. Hemorrhoidectomy in patients with Crohn's disease or ulcerative colitis may result in septic complications or slow healing of the wound.

-Frank J. Scwpa.

Is There Still an Indication for Emergency Cecostomy? (La caecostomie a-t-elle encore des indications en chirurgie d'urgence?)F. DROUARD, K. MOUSSALIER, I. BEN SLAMIA and others. Bord. Med., 1981, 14:1301-1304.

Since September 1977, the authors have used cecostomy upon 14 patients for obstructive disease of the left colon. Thirteen were constructed using the Palma technique in which the cecum and terminal part of the ileum are mobilized through a large MacBurney incision and brought out into the wound. The wound is partially closed, and an opening is made into the cecum with immediate maturation. The patients were between 58 and 83 years of age and tolerated the procedure well. The cecostomies were surgically closed intraperitoneally without any complications.

A Palma type of cecostomy has certain advantages over a temporary transverse colostomy. It is fashioned more easily, as the cecum is always accessible and is often easily mobilized. Technical difficulties with the mesocolon or the omentum, so commonly seen in the obese, are averted, as are vascular complications, for the mesocolon is not transfixed. Intestinal contents are totally diverted so that subsequent preparation of the intestine is easy. Also, the application of colostomy bags is easier at this site. The location of the stoma does not interfere with subsequent operative intervention, including that for associated conditions, such as biliary stones. Finally, closure of the stoma is technically easy and uncomplicated.

Disadvantages include mechanical difficulties if the small intestine is greatly dilated because of an obstruction, skin excoriation from the drainage- which is, however, manageable by careful local care- and the possibility of prolapse of the cecostomy, a problem not specific to this procedure. It is believed that the Palma type of cecostomy is the procedure of choice for decompression of obstructing lesions of the colon in an emergency situation.

-Ranes C. Chakravorty.

Indications and Limitation of Cryonsurgical Procedures upon Hemorrhoids (Indications et limites de Ia cryochirurgie des hemorroides). C. RAUSIS and J. ARNOLD. Praxis, 1982, 71:181-185.

The nitrous oxide cryoprobe operates at a temperature of -90 degrees C. The sheathed probe allows gas to escape through a small orifice inside the tip. The rapid expansion of this gas consumes calories by the Joule-Thompson effect and cools the tip of the probe. The cryoprobe destroys hemorrhoidal tissue by coagulation necrosis and can be applied with great accuracy through a plastic proctoscope with a side hole which allows the hemorrhoid to prolapse into the lumen of the scope. The probe is removed from the tissue by rapid warming which precludes avulsion of the frozen tissue.

The probe is applied for 2 to 3 minutes, during which time the hemorrhoid freezes to a solid white mass. The frozen tissue thaws in about 5 minutes and appears remarkably unchanged initially but undergoes necrosis and sloughing over the next three days. During this time, Sitz baths are recommended. The cryoprobe may be applied painlessly to the anal mucosa, but the thermal injury is extremely painful beyond the anal verge. Therefore the treatment of external hemorrhoids requires some form of analgesia.

In 215 patients who were treated during three years, grade 1 and grade 2 hemorrhoids have shown a very good response to cryotherapy with minimal symptoms postoperatively and an acceptably low recurrence rate. However, grade 3, prolapsed hemorrhoids did not respond well to cryotherapy in that pain and tenderness were prominent postoperatively, and a recurrence rate in excess of 50 per cent was recorded. These patients are better treated by standard resection. In general, however, the treatment of patients with hemorrhoids on an ambulatory basis with a minor procedure is more acceptable to patients and referring physicians alike in contrast to a more radical surgical resection.

-Ronald C. Merrel L

Site of Recurrence, Extent of Heal Disease and Magnitude of Resection in Primary and Recurrent Crohn's Disease. S. FASTH, R. HELLBERG, L HULTEN and C. AHREN. Acta Chir. Scand, 1981, 147 : 569-576.

The extent of involvement of the ileum at primary and subsequent operations and the anatomic site of the recurrent lesion as related to the initial location of the disease were studied in 153 patients With Crohn's disease. These patients were primarily teated with excjsional surgical procedures during a tenyear period from 1968 to 1977. The study was confined to those patients in whom all macroscopically involved intestine had been resected and in whom the lines of excision showed no histologic evidence of Crohn's disease. The follow-up period ranged from 2.2 to 11.3 years, a mean of 6.4 years.

The established policy was to remove the macroscopically diseased ileum, along with 10 to 15 cm. of healthy intestine on the proximal side and the smallest possible length on the colonic side. Before carrying out the anastomosis, the specimen was opened to make certain that the disease had not extended more widely on the mucosal aspect than on the serosal surface. A barium enema and a sthall intestinal follow-through were performed yearly during the first three years and then every second and third year or when these procedures were otherwise motivated because of suspected symptoms of recurrent disease. Rectosigrnoidoscopy was performed routinely, and patients who had ileostomy were examined yearly with ileoscopy and biospy, and a small intestinal enema was performed at the same aforementioned intervals.

In patients with classical Crohn's disease, the recurrent lesion was invariably located in the terminal portion of the small intestine proximal to the anastomosis, and the extent of both primary and recurrent ileal involvement amounted to approximately 60 cm. or less in three-quarters of the patients population. In those patients with Crohn's colitis who underwent an anastomotic procedure, the recurrent lesion also always appeared proximal to the anastomosis, but in some instances, an assoaiated lesion was present on its aboral side. In patients who were treated with proctocolectomy and ileostomy, the location of all of the recurrences was the distal part of the small intestine immediately proximal to the stoma which initially was macroscopically and microscopically free from disease.

The extent of involvement of the small intestine at each operation in the group with colitis and primary implication of the distal part of the ileum was, in general, somewhat less than that of those with the classical disease, indicating that, in approximately three-quarters of the patients, the length of ileal disease was less than 30 cm. in both the initial and recurrent attacks. However, in patients with primary exclusively colonic disease, the length of the recurrent ileal lesion varied between 30 and 60 cm. Since there is, so far, no evidence that the prognosis after operation is affected by the size of the margin of clearance of the disease .These results strongly support the view that the colonic resection should, "henever possible, be reserved for operations upon those with the classical disease. By adhering to such a policy, the major part of the colon will remain preserved even after multiple resections for recurrent disease. This precaution appears pathcuarly justified since approximately one-half of the small intestine will be sacrificed after three or four resections for classical Crohn's disease. In patients with Crohn's colitis the proportion of small intestine which was lost at each operation was generally less, but after three resections, approximately one-third of it was eventually sacrificed. This comparatively small amount of resection nevertheless exposes the patients to serious ill effects with excessive losses of water and electrolytes often associated with increased difficulties with care of the stoma.

-Orville F. Grimes.

Preoperative Use of 5-Fluorouracil Suppository for Carcinoma of the Rectum. Toshio Takahashi, Kenichi Kohno, Toshiharu Yamaguchi and Tomio Narisawa. Am. J. Surg., 1982, 143: 183-185.

The experience of the authors with treating 50 patients who had carcinoma of the rectum with 5 -fluorouracil suppository preoperatively to minimize local recurrence and metastasis is reported upon. Each suppository contained 200 mgm. of 5-fluorouracil and was administered intrarectally once or

twice a day for five to 30 days before the operation. Thirty-two patients underwent Miles' operation, six had anterior resection, and two had a pull-through operation. Ten patients who had inoperable cancer underwent colostomy and were given 5-fluorouracil for as long as possible.
The concentration of 5-fluorouracil in the tumor, lymph node and blood from the draining veins was measured. The findings showed that 5-fluorouracil permeates easily into the cancer, into the mucosa of the rectum and into the portal vein and lymphatic system. In eight of the 50 patients, the size of the cancer decreased after treatment with suppository. In additon, various histologic changes-swelling of the cells, vacuolation of the cytoplasm lysis of cell and necrosis-were noted in the carcinoma of the rectum. The notable side-effects of 5-fluorouracil suppository were anal pain, tenesmus and anal bleeding.
Intrarectal administration of the chemo therapeutic agent allows the drug to make direct contract with cancer cells and produces a higher local concentration. Long term survival studies must be performed before a definite conclusion can be drawn from the results of this study.
-Krishnan A. Gopal.

Massive Bleeding from the Ileum; a Late Complication of Pelvic Radiotherapy. D. TAVERNER, IC. TALBOT, D.L. CARRLOCKE and A. C. B. WICKS. Am. J. Gastroenterol., 1982, 77: 29-31.
Bleeding after radiation to the abdomen usually arises from the colon. Radiation affects the small intestine primarily by causing mucosal atrophy, fibrosis, necrosis and ulceration. These lead to obstruction, perforation, abscess, fistula or mal absorption. Such complications can occur even years after the radiation treatment. Bleeding from the small intestine secondary to radiation has not been reported upon. In this article, two such patients are summarized.
An 81year old woman had an 18 month history of bleeding to such an extent that blood transfusions were required. Three years previously, she had been given 4,500 rads to the lower part of the abdomen for transitional cell carcinoma of the bladder. Laparotomy revealed telangiectasia involving the entire colon. The ileum was within the pelvis and was white, thickened and adherent to the bladder. Bleeding recurred after operation despite total proctocolectomy with resection of the distal 10 cm. of ileum. Three months after the operation, she died following massive bleeding from the ileostomy.
A 5 5year old woman had Stage II squamous cell carcinoma of the cervix and had been treated by 3,155 rads of external radiation in addition to intrauterine and vaginal radium application. Bleeding began 11 years after the radiation. At laparotomy, 15 thickened and white cm. of the terminal part of the ileum were removed. Operative biopsy indicated granular mucosa with spontaneous bleeding in the area which was later resected. Postoperatively, no further bleeding occurred.
-Thomas J. Tamay.

Emergency Endoscopy of the Upper Gastro testinal Tract and Therapeutic Endoscopic Measures in Children (Notfallendoskopie des oberen Gastrointestinal traktes und therapeutische enaokopische Massnahmen im Kindesalter). K. J. PAQUET. Z. Kinderchir., 1981, 33: 122-127.
Sixty-eight emergency endoscopies of children were undertaken during a 30 month period. Children less than ten years old had general anesthesia. Older children could undergo endoscopy with local anesthesia. In 79 per cent of the children, a source of bleeding was identified. In another 15 per cent, a lesIon which could be a potential source of bleeding was identified
Three children with cirrhosis and five with prehepatic obstruction were treated with scierotherapy, and the bleeding of all was controlled. Another 34 patients underwent sclerotherapy after their bleeding was controlled by conservative measures. After scierotherapy, one patient each had incomplete necrosis of the esophageal wall, esophageal stenosis, recurrent bleeding from esophageal varies, reflux esophagitis from a preexisting hiatus hernia and questionable bleeding from fundic varices. The recurrences occurred three months after the beginning of treatment and stemmed from newly developed varices.
-Irving B. Margolis.

Surgical Treatment of Duodenal Ulcer; a Prospective Randomized Study. MICHAEL MULHOLLIAND, CHARLES MORROW, DANIEL H.DUNN and others. Arch. Surg., 1982, 117 393-397.
In this well-controlled, randomized, prospective study of 344 patients with duodenal ulcer over a 20year period beginning in 1960, the results of vagotomy and pyloroplasty were compared to those of vagotomy and hemigastrectomy. There were no postoperative deaths in either group, and postoperative complication rates were similar.
The recurrence rate in the group treated by vagotomy and pyloroplasty was 12 per cent as compared with 3 per cent in those treated by vagotomy and hemigastrectomy. There was an 8 percent reoperation rate of patients with vagotomy and pyloroplasty as compared with a 2 per cent reoperation rate for those with vagotomy and hemigastrectomy. Postoperative dumping and diarrhoea were more frequent and severe in the group treated by vagotomy and hemigastrectomy.
-Jack H. Cohen.

A Reappraisal of the Radiologic Diagnosis of Zollmger-Ellison Syndrome. WHLIAM C. MEYERS, WILLIAM M. THOMPSON, FREDERICK M. KELVIN and others. J. Chu. Sung., 1982, 1:99-105.
The sensitivity and reliability of contrast roentgenographic studies of the upper gastrointestinal tract in the differentiation of Zollinger-Ellison syndrome from peptic ulcer disease were reap-praised in a series of 26 patients. Thirteen patients had proved Zollinger-Ellison syndrome based upon clinical findings, results of basal serum gastrin levels and results of secretin or calcium infusion tests. In nine patients, gastrin secreting tumors were detected at operation. The remaining 13 patients had peptic ulcer disease with low gasttin levels and normal results of secretin or calcium infusion tests.
Roentgenograms of the upper gastrointestinal tract of all 26 patients were reviewed independently by five radiologists who had no access to clinical or laboratory data. Each radiologist reviewed each roentgenographic study independently. Afterward, each study was evaluated by all five radiologists acting as a group and deciding the roentgenographic diagnosis by simple majority. The roentgenographic findings suggested that Zollinger-Ellison syndrome included: the presence of multiple ulcers; ulcers in atypical locations, such as the jejunum and ileum; large mucosal folds, those greater than 5 mm. in the stomach and greater than 3 mm. in the jejunum; edema of the duodenum or the small intestine; megaduodenum, that with a diameter greater than 3 cm., and barium diluted or floculated hypersecretion.
In 11 patients, 42 per cent, four or more of the aforementioned signs were present, and a roentgenographic diagnosis of Zollinger-Ellison syndrome was made. Only six of these diagnoses proved to be correct. The single most reliable finding was edema of the small intestine, which was present in 13 patients, nine of whom actually had Zollinger-Ellison syndrome. Roentgenographic findings which were evaluated by the radiologists as a group, when compared with the true diagnosis, were accurate for only 63 per cent of patients and erroneous for 37 per cent, a 19 per cent rate of false-positive results and a 17 per cent rate of false-negative resu its.
Accordingly, roentgenographic studies are not sensitive or reliable enough for an unequivocal diagnosis of Zollinger-Ellison syndrome. Normal roentgenographic results certainly do not exclude the presence of the disease. Abnormal roentgenographic findings suggest the need of further investigations to corroborate or rule out the diagnosis of Zollinger-Ellison syndrome.
--Erich W. Pollak.

Carcinoma of Rectum; Results Following Surgical Resection 1971-1979. P.H. CHAPUIS, MT. PHEILS, R.C. NEWLAND and othersAust. N.ZJ. Suig., 1982, 52: 16-23.
A PROPOSPECTIVE STUDY was undertaken to compare the post-operative morbidity and mortality of patients who had undergone an abdominopermeal resection and those who had had an anterior

resection for carcinoma of the rectum. The instances of carcinoma which were treated were single tumors and were not associated with any predisposing conditions, such as polyposis coli or ulcerative colitis. The latter type of patients were çxcluded from the trial. At the same time, an expanded and modified version of the original Dukes' method of staging was used.

Results of a detailed analysis indicated that a trend toward anterior resection and away from abdominoperineal excision of the rectum was developing throughout the period of the study. The majority of the tumors which were removed by anterior resection were over 7 cm. from the anal margin and measured no greater than 5 cm. in surface diameter. The mean distal margin of clearance was 3 cm. There was no significant difference in the proportion of tumors with limited direct spread, deep invasion or involvement of the lymph nodes when compared between the two groups. In fact, the tumors removed by anterior resection had more frequently invaded a free serosal surface.

Results of an evaluation of the survival rate following definitive operation indicated that there was no significant difference in survival rates between the two treated groups when the results were standardized according to the level and the pathologic stage of the tumor. This finding would appear to confirm recent observations by the Mayo Clinic and St.' Mark's Hospital in London. Overall, the results would appear to confirm the findings that restoration of continuity in the alimentary tract at this level is not associated with an unfavourable prognosis.

-Robert T.J. Holl-Allen.