G4024

JEJUNAL LOOP TRANSPOSITION ALTERNATIVE FOR SALVAGING FAILED ILEAL POUCH ANASTOMOSIS. L.Gambiez, S.Rossi, F.Denimal, P.Quandalle. Service de Chirurgie Adulte Ouest, Hôpital Huriez, 59037 Lille Cedex France.

Complications of ileal pouch anal anastomosis may lead to removing the J pouch, and subsequent completion of new pouches may not be possible. For such situations, we report a method of jejunal loop transposition to the anus, that may be an alternative when redo pouch procedures can not be attempted anymore.

Method: The second jejunal loop, vascularized by the second arcade pedicle was isolated after dividing the third and fourth arcade vessels. This loop was brought downward to the anus and an isoperistaltic jejunoanal anastomosis was performed. The normal intestinal circuit was restored by jejuno jejunal anastomosis and ileo jejunal anastomosis (proximal stump of the loop). The jejunoanal anastomosis was protected by a temporary fecal diversion.

Patients and results:

Age/sex	Cause of pouch failure	Stool frequency diurnal/nocturnal	Soilage	Urgencies	Employment status	Manometry maximal volume	Follow up
14/M	total necrosis	3/0	No	No	Full time	140 ml	7 years
44/F	partial infarction	6/2	No	No	House work	120 ml	5 years
44/M	partial infarction	5/1	Yes	No	–	–	6 month

The six months barium enema showed a mild dilatation of the transposed loop in all patients. Patient satisfaction is good in all cases. Restorative surgery, after pouch removal, has been worthwhile. When J or S pouch procedures can not apply anymore, the jejunal loop transposition technique may give solutions to anatomic and functionnal concerns.

● G4025

ABSCESSES IN CROHN'S DISEASE: OUTCOME OF MEDICAL VERSUS SURGICAL TREATMENT. J.C. Garcia, S. Persky, P.A.L. Bonis, M. Topazian, Department of Internal Medicine, Yale University School of Medicine, New Haven, CT.

Background: Abscesses in Crohn's disease may be treated medically, percutaneously or surgically. The long-term outcome after these treatment modalities is uncertain.

Methods: We reviewed inpatient and outpatient records of 51 consecutive patients with Crohn's disease and abdominal abscess admitted to Yale-New Haven Hospital between 3/87 and 3/97. Abscesses were documented by CT or ultrasound appearance, needle aspiration, operative findings, or pathology reports. Initial treatment was deemed surgical if surgery was performed during the index admission. Forty patients could be contacted for a telephone interview. **Results:** Patients were treated with surgical drainage and bowel resection (34), medical therapy (10), or percutaneous drainage (7). The groups were similar with respect to gender, age, distribution of Crohn's disease, Apache 2 score, number of abscesses, and duration of follow-up (mean 54 months). Two patients died during the initial hospitalization.

Treatment Modality	N	Recurrent Abscess (%)	P value*
Medical	10	5 (50)	
Percutaneous	6	4 (66)	NS
Surgical	33	4 (12)	.0166

*Compared to medical treatment, χ^2

The median time to abscess recurrence was 35 days. Nine of the 13 recurrent abscesses were treated surgically. Overall, subsequent surgery for any Crohn's related indication was more common in the non-surgical group (8/16, 50%) when compared to the surgical group (4/33,12%) (p = .01). **Conclusion**: Significantly fewer patients developed recurrent abscesses following initial surgical drainage and bowel resection when compared with either medical therapy or percutaneous drainage. Half of the patients treated non-operatively ultimately underwent surgery.

● G4026

IMPROVEMENT OF COLONIC BARRIER FUNCTION BY COLONIZATION WITH LACTOBACILLI IN THE RAT. A. García-Lafuente, M. Antolín, E. Crespo, F. Guarner, J-R. Malagelada. Digestive System Research Unit, Hospital General Vall d'Hebron, Barcelona, Spain.

Altered intestinal permeability is a key pathogenetic factor of idiopathic bowel inflammation, as it facilitates penetration of proinflammatory antigens into the gut wall. We have investigated in the rat whether modification in the composition of the flora can alter colonic permeability. Thus, a colonic segment was surgically excluded from fecal transit and brought out to the abdominal wall through two colostomies. The segment provides a suitable *in vivo* environment for colonization with preselected strains after elimination of the native flora with antibiotics. We tested lumen-to-blood clearance of dextran (mw 70,000) and mannitol (mw 182) in rats precolonized with a single bacteria strain from rat colonic origin (*Escherichia coli, Lactobacillus spp*), and in **control** rats whose colonic segment was kept germ-free by antibiotic flushing through the colostomies (imipenem and vancomycin, 50 mg/mL). Actual colonization was confirmed by culture of segment effluents. Rats were anesthesized, nephrectomized by ligation of renal pedicles, and a 500 μL saline bolus containing ^{3}H-dextran and ^{14}C-mannitol was instilled into the segment. Blood samples were obtained for 5 h, and recovery of the radioactive probes was determined by scintillation counting. Data represent recovery of the probes per cm^2 of mucosa. Results: Colonization by a single strain was confirmed in 8 *Escherichia coli* rats and in 7 *Lactobacillus* rats. Cultures of segment washings from control rats were negative. Colonization with *Escherichia coli* significantly ($p<0.05$) increased lumen-to-blood clearance of mannitol ($0.54 \pm 0.05\%$ versus $0.27 \pm 0.03\%$ in controls). In contrast, colonization with *Lactobacillus* reduced lumen-to-blood clearance of mannitol ($0.16 \pm 0.01\%$, $p<0.05$ vs controls). Intestinal permeability to dextran was not altered by colonization with the strains tested. Conclusions: Certain commensal bacteria increase colonic mucosal permeability to luminal substances. In contrast, the *Lactobacillus* strain tested improves barrier function

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PREDICTIVE FACTORS OF FAILURE OF INTENSIVE INTRAVENOUS TREATMENT IN SEVERE ULCERATIVE COLITIS. Gargouri D, Carbonnel F, Beaugerie L, Lémann M, Cosnes J, Gendre JP. Services d'Hépatogastroentérologie, Hôpital Rothschild et Hôpital Saint Louis, Paris.

Background. Mortality and morbidity of severe ulcerative colitis (UC) increases in patients who are colectomized too late. Early recognition of non responders to the intensive intravenous treatment (IIVT) may shorten the delay of colectomy or cyclosporin. Methods. All the consecutive patients hospitalized in a single center between january 1990 and may 1997 (n=85) for an attack of UC requiring IIVT (IV methylprednisolone at a dose of 1 mg/kg/24h + bowel rest and IV hydration) were studied retrospectively. IIVT was prescribed because of a failure to respond to high dose oral corticosteroids (n=59) and/or a severe clinical status. Failure of IIVT was defined as no change or worsening of the clinical condition and led to colectomy or IV cyclosporin for some of the most recent patients. Indication for colectomy or cyclosporin was no change or worsening of the clinical condition under IIVT. Clinical, biological and endoscopic (n=78) parameters were noted at entry. Their influence upon the cumulative risk of failure (colectomy or cyclosporin before day 30) was assessed using univariate (Log rank test) and multivariate (Cox model) analysis. Results. 45 patients failed to respond to IIVT. 31 of them were colectomized before day 30 and 13 were treated with cyclosporin (7 of them were colectomized before day 30); 1 patient died at day 5 of IIVT. Multivariate analysis selected 3 variables predictive for failure of IIVT: the number of Truelove and Witts criteria ($p<0.001$), endoscopic severity ($p<0.001$) and duration of the attack ($p<0.001$). None of the following parameters predicted the failure of IIVT: age, gender, duration of disease, number of attacks, failure of oral corticosteroids, blood cholestrol level and CRP. The colectomy rate was of 81% (17/21) in patients who had 3-5 Truelove and Witts criteria and endoscopic signs of severity. Conclusion. Endoscopic criteria of severity add information to clinical and biological data to assess the risk for colectomy. A prospective study is required to confirm these data.

G4028

SODIUM NITRITE INHIBITS NUCLEAR FACTOR KAPPA B IN HT-29 CELLS. M. Gastanaduy, S.Y. Kim, J. Mishra, X. Liu, M.J.S. Miller, E. Mannick, Z. Liu. Dept. of Pediatrics, Louisiana State University, New Orleans, LA.

Nitrite, the product of bacterial nitrate reduction and of host nitric oxide (NO) metabolism, is present at micromolar concentrations in the large intestine. Using an intestinal epithelial cell line, HT-29, we sought to determine its effects on the activation of NF-κB, a transcription factor regulating immune responses. HT-29 cells were stimulated with either lipopolysaccharide (LPS) or tumor necrosis factor (TNF) and incubated for 2 hours with concentrations of sodium nitrite ranging from 0 to 1000 μM. Electrophoretic mobility shift assays were performed on nuclear extracts. ELISA for TNF was performed on cell supernatants. NO production was measured by electrochemistry and nitrite production by Griess reaction. Exposure of HT-29 cells to LPS or TNF together with nitrite (50 to 100 μM) resulted in attenuation of NF-κB binding. LPS-stimulated TNF production was decreased by all doses of nitrite studied. NO production was not detected at any dose of sodium nitrite and the concentration of nitrite in the cell supernatant did not change over time. In conclusion, sodium nitrite inhibited NF-κB activation and TNF production in an intestinal epithelial cell line, HT-29. We found no evidence that it does so by its conversion to nitric oxide.