Brief Meeting Reports from the 53rd Annual Meeting of the American Association for the Study of Liver Disease (AASLD)

Program Helps Hepatitis C Patients Comply with Interferon Therapy Regimen

A new cognitive behavioral therapy strategy developed by Schering-Plough improves compliance among patients with hepatitis C (HCV) who are receiving the pegylated interferon-based combination therapy Peg-Intron® and Rebetol® (ribavirin), according to a Northwestern University study.

In the study, Steven L. Flamm, M.D., associate professor of medicine and of surgery at The Feinberg School of Medicine and principal investigator, showed that HCV patients enrolled in an aggressive side-effect management program, including the Schering-Plough patient assistance program, "Be In Charge," are less likely to stop taking Peg-Intron and Rebetol combination therapy in the first 12 weeks of therapy than patients who receive only routine supportive care by their physicians.

Study results also indicated that pegylated interferon-based combination therapy significantly improved physical and mental health-related quality of life at weeks 4 and 8 of the regimen.

"The next advancement in treatment may be some years down the road. Right now we need to maximize the current standard of care to get better results for patients," Flamm said. "This study suggests that a proactive support program can actually contribute to the success of therapy and may, therefore, lead to increased cures for this often deadly infection."

"Be In Charge," is designed to assist patients in managing side effects associated with HCV therapy through the use of educational materials and telephone support by nurses. To date, the program has enrolled more than 55,000 HCV patients.

Some 4 million Americans are infected with HCV and approximately 70 percent of infected patients go on to develop chronic liver disease, according to the Centers for Disease Control and Prevention. HCV infection contributes to the deaths of an estimated 8,000 to 10,000 Americans each year and this toll is expected to triple by the year end of 2010. The CDC has reported that HCV-associated end-stage liver disease is the most frequent indication for liver transplantation among adults.

It is predicted that direct U.S. medical costs to treat HCV-related disease will exceed $13 billion for the years 2010 through 2019, according to a recent study. ■

First-of-Its Kind Scholarship Program Aims to Support African-American and Hispanic Students Challenged by Hepatitis C

Thurgood Marhall Scholarship Fund and Hispanic Scholarship Fund Partner for First Time on New Horizons Scholars Program

The Thurgood Marshall Scholarship Fund (TMSF) and Hispanic Scholarship Fund (HSF) established the New Horizons Scholars Program to provide college scholarships to Hispanic and African-American students who have hepatitis C or are dependents of a person with the disease. The New Horizons Scholars Program is funded by The Roche Foundation.

"The New Horizons Scholars Program is a first of its kind partnership that aims to create additional financial resources to cover the costs of higher education for Hispanic and African-American students impacted by hepatitis C," said Heriberto Rios, Programs Manager for the TMSF. "This innovative program will allow both organizations to reach more students with scholarship opportunities and thereby, have an even greater impact on the number of young people entering the nation's colleges and universities."

The New Horizons Scholars Program will provide 50 scholarships per year to students planning to enroll for the first time in a four-year college during the 2003–2004 or 2004–2005 academic years. Scholarships will be awarded to students of Hispanic or African-American heritage who are infected or are dependents of someone infected with hepatitis C. For two classes (2003, 2004), 50 students will be eligible for $2,500 per year for four years. Students must maintain the program's academic standard of 3.0 G.P.A. Scholarship winners will be notified in the late spring of 2003. Applications are available through HSF's web site www.hsf.net, by calling 1-866-3HORIZON and through contacting hepatitis-C treating physicians offices.

For more information on the New Horizons Scholars Fund go ro: www.hsf.net or www.thurgoodmarshall-fund.com

Booklet on Colon/Rectal Cancer Prevention Adds Vital New Information on Lifestyle Guidelines

An educational booklet on colon/rectal cancer prevention, "The Cancer Nobody Has to Have and How to Stop It,"is available in bulk quantities to medical professionals from the STOP Colon/Rectal Cancer Foundation.

The booklet has been revised to include the latest recommendations from the American Cancer Society's *Guidelines on Nutrition and Physical Activity for Cancer Prevention,* along with a risk-assessment questionnaire that can help people determine if they are of average or increased risk for developing colorectal cancer.

Each year colorectal cancer kills more than 56,000 American men and women. The foundation hopes to stop this second leading cancer killer through a unique public education effort focusing on prevention. The new guidelines on nutrition and physical activity, along with other lifestyle changes now included in the booklet, are practical and easy to adopt. The revised risk-assessment questionnaire will help people determine their risk potential and at what age to discuss screening procedures with their physicians. "People wrongly think that screening for cancer means you may already have the disease," said Ernestine Hambrick, M.D, a board-certified colon and rectal surgeon and foundation chairman.

Colorectal cancer almost always starts in non-cancerous growths called polyps that develop on the lining of the colon and rectum. These polyps can become cancerous but, when found as early as possible through screening tests and promptly removed, the cancer can easily be prevented before it ever gets started.

"Scientific research has shown that up to 90 percent of colorectal cancers can be prevented just by finding and removing polyps before they become cancerous," Dr. Hambrick said. "Our new motto—'Do the Test. Find the Polyp. Skip the Cancer!™'—should serve as a constant reminder that colorectal cancer is different because screening can prevent it."

Screening for colorectal cancer should begin at age 40 or earlier for those at increased risk because of a personal or family history of colorectal polyps, colorectal cancer, ulcerative colitis or Crohn's disease, or

ovarian, uterine or inherited breast cancer. In these cases a total evaluation of the colon by colonoscopy or a double contrast colon x-ray and flexible sigmoidoscopy (FS) should be performed. The timing of these tests should be determined by a physician.

"Starting at age 50, men or women of average risk—and that's the rest of the population—should have a colonoscopy every 10 years, a fecal occult blood test (FOBT) annually with a FS every five years, or a double contrast colon x-ray every five to 10 years," said Dr. Hambrick. "The right test for each individual should be decided upon by patients and their physician. The best test is the test that gets done."

Colorectal cancer is called a silent killer because very often there are no symptoms to indicate anything is wrong until quite late. However, when symptoms occur, they may include bleeding from the rectum; blood in or on the stool; change in bowel pattern; stools narrower than usual; diarrhea, constipation or a combination of both; bloating, fullness or general stomach discomfort; frequent gas pains; constant tiredness; weight loss for no apparent reason; or vomiting. Anyone experiencing one or more of these symptoms should see a doctor immediately.

"We have included in this revised booklet other important measures men and women can take to reduce their risk of colorectal cancer," Dr. Hambrick said. "Our main message, however, is that colorectal cancer can be eradicated if people understand their risk factors, how risks can increase or be reduced, and the need to be screened early and on a regular basis. It is important to remember that screening means being tested when there are no symptoms. No one should wait for symptoms to appear before being tested."

Contact the Stop Colon/Rectal Foundation, P.O. Box 1616, Barrington, Illinois 60010. Medical professionals may order bulk quantities via e-mail at EHcrsone@aol.com. Consumers and medical professionals may also find more information at the STOP Colon/Rectal Cancer Foundation's Web site at www.coloncancerprevention.org.

Celltech Relaunches Dipentum® in U.S.

Celltech Pharmaceuticals is relaunching Dipentum® (olsalazine sodium capsules) in the U.S. market. Dipentum is indicated for the maintenance of remission of ulcerative colitis (UC) in patients intolerant of sulfasalzine. The drug was approved by the FDA in 1990, but has not been actively detailed to physicians since 1996.

"Ulcerative colitis is a chronic, debilitating condition that can be difficult to treat. Often successful treatments in some patients may not be effective in others," said Dr. Dan Present, Clinical Professor of Gastroenterology, Mt. Sinai School of Medicine. "Patients need a drug that works for them and is easy to take. I've seen the benefit of taking a second look at effective therapies in the 5-ASA class that may have been overlooked in the past, and Dipentum may be such an example."

Patients find Dipentum convenient to take with a manageable side effect profile. It is taken in two capsules twice a day with meals.

Dipentum is contraindicated in patients with hypersensitivity to salicylates. In controlled clinical trials, the incidence of adverse reactions with Dipentum therapy was comparable to placebo with the exception of diarrhea, abdominal pain and rash/itching. The incidence of diarrhea in controlled studies was 11.1 percent with Dipentum vs 6.7 percent with placebo. ■

Esophageal Surgery, 2nd Edition

Pearson FG, Cooper JD, Deslauriers J, et al, editors
Churchill Livingstone, 2002
ISBN: 0443076057
165£ (about $250.00)

This book, edited by a group of surgeons who have held academic appointments at the University of Toronto, is the second volume of this text, first published in 1995.

This is a full-service comprehensive textbook, intended as a general reference for the surgical house officer and established practitioners in general and thoracic surgery and gastroenterology. The chapter authors are recognized experts in the areas for which they write. The list of authors includes leading research and clinical people from around the world.

The text is written in highly readable form, with clear diagrams and tables. Excellent endoscopic photographs of esophageal pathology are included. Thorough descriptive chapters reviewing both open and laparoscopic techniques are clear in their description of modern procedures for reflux. Complete chapters describe the pathophysiology of reflux and hiatal hernia, function testing, imaging techniques, and pediatric disorders. Detailed description of esophageal cancer and its care, including palliative care, radiation, and chemotherapy, are given in seven chapters. A segment of 17 chapters giving detailed description and diagrams regarding current surgical techniques in esophageal surgery is outstanding. For the gastroenterologist, there are detailed chapters regarding function tests, esophagoscopy, and excellent review chapters regarding hiatal hernia and reflux. Also, there are a pair of chapters regarding indications for surgical referral and indications for surgery for gastroesophageal reflux. These chapters should be helpful at bridging information between the surgical and gastroenterology departments that often work together, and give rise to topics for further discussion.

Overall, the book accomplishes its goal of providing an up-to-date complete general reference for esophageal disorders, with information helpful to gastroenterolgists and surgeons. Any surgeon will be well served by this text, as the variety of techniques and the detail of description will provide information for many different clinical situations. Text and diagrams are clear for surgical house staff, and in detail show the steps for many procedures. The gastroenterologist will find clear information regarding surgical perspective toward reflux and techniques in addition to basic science about reflux disease and esophageal function testing.

Recognizing the limitations of textbooks, this represents a contemporary comprehensive text that will serve its readers well. This book belongs in all general surgical department libraries, as well as thoracic surgery, and would be a welcome addition to gastroenterologists as well.

Bryan Fandrich, MD
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Living With Hepatitis C—A Survivor's Guide

Gregory T. Everson, M.D., F.A.C.P. and
Hedy Weinberg
Hatherleigh Press, ISBN: 1-57826-108-2, $15.95

This book is an excellent resource for newly diagnosed patients and those dealing with long term complications of the disease itself.

It is presented in a simple straight-forward style from the first steps of disease diagnosis and testing, risk factors, and routes of transmission, to detailed description of liver function and disease progression.

The patient testimonials and anecdotes were particularly insightful providing individual coping strategies and vicarious "support" group feedback, and the relief that is felt when you realize that you are not facing these obstacles alone. Importantly, the book provides practical information for dealing with physical, nutritional, financial, and emotional effects of the disease.

Being one to appreciate the cutting edge research and the efficacy of various treatment protocols, I found the "Evolution of Treatment for Hepatitis C" and "Pegylated Interferons" chapters of the book the most interesting. The prognosis for a "cure" (sustained response), is getting within reach of many patients like myself as a result of the multi-center clinical trials of the past 5 years.

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As a patient, I can't express enough my appreciation for the time and effort devoted by dedicated doctors such as Gregory T. Everson for their clinical research and book writing, and to Hedy Weinberg for the invaluable patient perspective

RLM
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Johns Hopkins Manual for Gastrointestinal Endoscopy Nursing

Ogilvie J, Norwitz L and Kalloo A, eds
Slack, Inc, 2002
ISBN: 1-55642-576-7, $36.00

This book is excellent for use as a reference for creating orientation manuals and training programs for new staff in a GI procedure unit. It would also be a great reference for writing policies and procedures for a GI unit.

It is written with good background information so it gives a strong basis to its instructional material.

The chapter on sedation has excellent guidelines and information about the commonly used medications and the principles of sedation. Having the ASA classification for anesthesia printed is very helpful in setting up guidelines for sedation during procedures.

The discussion of procedures performed in a GI unit was done in a logical order and discussed in very easy to follow steps. This part of the book could be easily adapted to any GI unit procedure and orientation manual.

Overall this book is an excellent reference for GI procedural nursing.

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Diseases of the Gastroesophageal Mucosa

Freston JW, ed
Humana Press, 2001
ISBN: 0-86903-985-X, $99.50

This is a very good textbook that is highly focused on two issues: peptic ulcer disease and gastroesophageal reflux disease (GERD). Noted experts in this field wrote all 11 chapters. However, it does not discuss the gastric and esophageal mucosa in any great detail and it would not be of any value to a basic scientist involved in their study. There are several chapters that include thorough discussions of current knowledge and controversies with regard to *H. pylori*.

The summary chapter by Colin Howden is excellent. The chapter on NSAID involvement in peptic ulcer disease was obviously written prior to widespread use of the selective NSAID's, although there is a brief discussion of these medications. The chapters on GI bleeding and Zollinger-Ellison syndrome are excellent additions to the textbook. Nimish Vakil's discussion of the ever-changing views on dyspepsia is quite good. The chapters on GERD are thorough, full of data, and up to date. The section on Barrett's esophagus is brief and directed at recommending the best clinical management of this area. It steers clear of detailed discussions of the controversial issues.

This is an excellent book on the clinical evaluation and management of peptic ulcer disease and GERD. This book would be useful to practicing clinicians, both gastroenterologists and primary care physicians with an interest in this area.

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Irritable Bowel Syndrome: Diagnosis and Treatment

Camelleri M and Spiller RC, eds
W. B. Saunders, 2002
ISBN: 0 7020 2655 7, $75.00

Since the Rome consensus definition of the irritable bowel syndrome (IBS), there has been a considerable wealth of new information on the pathophysiology of IBS. Although a lot is still unknown many advances have been made in the last few years and new medications for the treatment of IBS have been developed. Published in 2002, the hard covered book contains the latest advances in the drug therapy of IBS that older books do not address.

Drs. Camilleri and Spiller are well known for their research in this field and they bring together, in this

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single volume, internationally known experts on IBS, basic researchers, clinicians, psychologists, psychiatrists, and academicians with a wealth of experience in IBS. They used an evidence-based approach to question existing paradigms. Most chapters begin with a summary box of its contents. All the illustrations, charts and tables are in full color, making the book appealing and easy to read.

Chapter one deals with the clinical diagnosis of IBS, emphasizing the fact that when IBS is confidently diagnosed based on clinical criteria, a new cause of symptoms is rarely discovered during long-term observation. IBS is among the more common causes for referral to gastroenterologists and its prevalence ranges from 10% to 20% depending on the definition used. However, only a small number of patients seek medical intervention. Chapter 2 discusses the determinants of healthcare seeking behavior of IBS patients.

Section 2 deals with the psychosocial factors in IBS etiology. The important role of stressful life events such as sexual or physical abuse and psychiatric disorders in the development of IBS is addressed. The third section addresses the different pathophysiologic hypotheses of IBS, including altered central nervous system processing of visceral pain, intestinal dysmotility, hypersensitivity and post-infectious states. Serotoninergic mechanisms play an important part in gastrointestinal motility and sensation. This discovery has led to the development of novel therapeutic drugs specifically targeted for the symptoms of IBS. The authors did a good job of analyzing and providing the latest evidence supporting the use of the different medications presently available and those under investigation.

Primary care physicians see the majority of IBS patients. Appropriately, a separate chapter is dedicated to the management of IBS from the perspective of the primary care provider. Several primary care research agendas are also highlighted for further study to broaden our understanding of this condition.

Overall, the book is concise, colorful and easy to read. Gastroenterologists and primary care providers interested in learning more about the latest innovations in this field will find it comprehensive enough to answer most of their questions about this important disorder.

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Celiac Disease in Auto-Immune Cholestasis

Two hundred and fifty-five patients with primary biliary cirrhosis, auto-immune cholangitis and primary sclerosing cholangitis were evaluated by serologic screening for celiac disease (CD) to define the prevalence of an association between CD and the other disorders and to evaluate the impact of gluten withdrawal on liver disease, associated with gluten-sensitive enteropathy.

Immunoglobulin A endomysial and human tissue transglutaminase antibodies were positive in nine patients (7 with PBC, one with autoimmune cholangitis and one with primary sclerosing cholangitis) with duodenal biopsy results showing villous atrophy consistent with CD.

Two of the patients had a malabsorption syndrome and one had iron deficiency anemia. Clinical and biochemical signs of cholestasis did not improve after gluten withdrawal in three patients with severe liver disease.

Findings of CD in 3.5 percent in autoimmune cholestasis suggests that serologic studies for CD should be routinely performed in those patients by immunoglobulin A, endomysial or transglutaminase antibodies. (Volta AU, Rodrigo L, Grinito A, et al. "Celiac Disease in Auto-Immune Cholestatic Liver Disorders." *American Journal of Gastroenterology,* 2002; Vol. 97, pp. 2609-2613.)

ESWL For Chronic Calcific Pancreatitis

Forty patients with chronic calcific pancreatitis who required extracorporeal shock-wave lithotripsy between 1995 and 2000 to facilitate pancreatic duct stone removal were retrospectively reviewed. A single ESWL session was required for 35 patients who underwent a total of 86 ERCPs to achieve complete stone extraction from the main pancreatic duct. Minor complications occurred in 20 percent. There was one episode of pancreatic sepsis, treated with antibiotics and removal of an occluded pancreatic prosthesis at a mean follow-up of 2.4 years. Eighty percent of patients had avoided surgery, and there was a statistically significant decrease in pain scores, yearly hospitalizations for pancreatitis and Oxycodone-equivalent narcotic medication ingested monthly.

It was concluded that ESWL fragmentation of pancreatic duct calculi in conjunction with endoscopic clearance of the main pancreatic duct is associated with significant improvement in clinical outcomes in most patients with chronic pancreatitis. (Kozarek RA, Brandabur J, Ball TJ, et al. "Clinical Outcomes in Patients Who Undergo Extracorporeal Shock-wave Lithotripsy For Chronic Calcific Pancreatitis." *Gastrointestinal Endoscopy,* 2002; Vol. 56, pp. 496-500.)

Appendicitis and Imaging

On the basis of clinical findings, 350 consecutive patients with clinical suspicion of acute appendicitis were prospectively divided into three groups as follows: Low, intermediate and high probability of having appendicitis. All patients then underwent diagnostic ultrasonography. The clinical likelihood of appendicitis and the ultrasonographic results were correlated with definite diagnoses.

In the patient with clinically low probability of having appendicitis, appendicitis was present in 10 percent (11 of 109 patients), and in those with intermediate probability, appendicitis was present in only four percent (23 of 97 patients). Patients with a clinically high probability of having appendicitis had appendicitis in 65 percent (94 of 144 patients), and alternative diagnosis in 18 percent and no specific definitive diagnosis in 17 percent). Ultrasonography diagnosed appendicitis in the differential diagnosis with a sensitivity of 98 percent and 97 percent, specificity in 98 percent and 100 percent, positive predictive value of 96 percent and 99 percent, negative predictive values of 99 percent and 99 percent and accuracy of 98 and 99 percent, respectively.

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It was concluded that even in patients with clinically high probability of acute appendicitis, diagnostic imaging should be performed because it accurately depicts a high percentage of normal appendices and differential diagnoses. (Rettenbacher T, Hollerweger A, Gritzmann N, et al. "Appendicitis: Should Diagnostic Imaging be Performed if the Clinical Presentation is Highly Suggestive of a Disease?" *Gastroenterology,* 2002; Vol. 123, pp. 992-998.)

Treatment of Post-Fundoplication Dysphagia

A retrospective review of 14 patients who underwent pneumatic dilation for persistent post-fundoplication dysphagia were reported. There were nine responders to pneumatic dilation (30 to 40 mm balloons). The only significant predictor for successful. dilation was lower esophageal sphincter Nadir LES relaxation pressure compared with nonresponders (median l0 mmHg versus 5 mmHg). All six of 14 patients with those pressures equal or more than l0mmHg had a good response. There is no significant difference in the lower esophageal sphincter basal pressure between the responders and nonresponders (median 20 mmHg versus l2 mmHg).

Distal peristaltic amplitude and ramp pressure did not differ significantly between responders and nonresponders. No perforations occurred.

It was concluded that pneumatic dilatation is a reasonable, safe and effective treatment for patients with pose-fundoplication dysphagia and that an elevated Nadir LES relaxation pressure seems to be a useful predictor of successful outcome. (Hui JM, Hunt DR, DeCarle DJ, Williams R, Cook I. "Esophageal Pneumatic Dilation For Post-Fundoplication Dysphagia: Safety, Efficacy and Predictors of Outcome." *American Journal of Gastroen - terology,* 2002; Vol. 97, pp. 2986-2991.)

Treatment of *H. Pylori* and GERD

Five hundred and thirty-three patients with heartburn and regurgitation scores assessed at baseline at 4 weeks after end of therapy were divided into two groups, number one including no prior GERD symptoms and number two including prior GERD symptoms. *H. pylori* was assessed at baseline and four more weeks after therapy by rapid urease test, histology and culture.

Erosive esophagitis developed in 24 (4 percent) of 600 patients, with cure, versus 14 (3 percent) of 544 with persistent *H. pylori*. Esophagitis developed in 2 of 26 patients (7 percent) with cure, versus 5 (7 percent) of 76 with persistent infection.

True GERD symptoms developed in 13 (14 percent) of 92 patients with cure, versus 7 (20 percent) of 35 with persistent infection. GERD worsened in 20 (7 percent) of 269 with cure, versus 20 (15 percent) with persistent *H. pylori*.

It was concluded that the results did not support the hypothesis that *H. pylori* eradication in patients with duodenal ulcer disease leads to the development of erosive esophagitis, the development of new symptomatic GERD or worsening of symptoms in patients with preexisting GERD.

All of the above patients had active or past duodenal ulcer without baseline erosive esophagitis. (Laine L, Sugg J. "Effect of *Helicobacter Pylori* Eradication on Development of Erosive Esophagitis and Gastroesophageal Reflux Disease Symptoms: A Post-Hock Analysis of Eight Double-Blind Prospective Studies." *American Journal of Gastroenterology,* 2002; Vol. 97, pp. 2992-2997.)

Neostigmine For Acute Colonic Pseudo-Obstruction

One hundred & fifty-one patients were identified with ACPO (acute colonic pseudo-obstruction) between July, 1999 and September, 2001. 117 patients (77 percent) had spontaneous resolution of symptoms. Of the 34 nonresolvers, 18 patients received Neostigmine 2mg intravenously and 16 did not. Of the 16 patients, 11 required colonoscopic decompression, 2 underwent surgery and 3 died of underlying illness. Spontaneous resolvers were less likely to be taking narcotics.

Of the 18 patients who received Neostigmine, 16 had prompt evacuation of flatus or stool. Sustained clinical response to Neostigmine was noted in 11 of 18. The remaining 7 patients required colonoscopic decompression or surgery for recurrent or persistent colonic dilation. Pre-Neostigmine cecal diameter did not differ significantly between responders and nonreponders (median 13 cm.). Median time to resolution of ACPO in

spontaneous resolvers was 4 days, compared to 2 days in patients responding to Neostigmine.

It was concluded that most patients with ACPO respond to conservative treatment. Female gender and older age are associated with response to Neostigmine in those patients who do not respond to conservative management, and Neostigmine is underused in patients with ACPO who do not have a true contraindication to its use (bradycardia, bronchospasm, hypotension). (Loftus CG, Harewood GC, Baron TH. "Assessment of Predictors of Response to Neostigmine For Acute Colonic Pseudo-Obstruction." *American Journal of Gastroenterology,* 2002; Vol. 97, pp. 3118-3122.)

AIH Evolution to Sclerosing Cholangitis

Six adult cases in which primary sclerosing cholangitis (PSC) was diagnosed many years after well-established autoiminune hepatitis (AIH) were described. The six patients had definite criteria for autoimmune hepatitis at presentation, with no evidence of biliary disease on initial liver biopsy and ERCP. All patients responded well to immunosuppressive therapy.

After an average duration of 4.6 years, they became resistant to immunosuppression and developed clear features of PSC, confirmed by ERCP. Three of these patients had ulcerative colitis. There were no specific features or presentation that could predict the evolution or outcome. It was concluded that patients with well established AIH can, after variable duration of follow-up, develop PSC.

In patients with AIH who are resistant to immunosuppression or developed significant cholestasis, PSC should be ruled out by ERCP. (Abdo AA, Bain VG, Pishian K, Lee SS. "Evolution of Autoimmune Hepatitis to Primary Sclerosing Cholangitis: A Sequential Syndrome," *Hepatology,* 2002; Vol. 36, pp. 1393-1399.)

Quadruple Vs. Triple Therapy for *H. Pylori*

A direct comparison of Bismuth and proton pump inhibitor-based triple and quadruple therapies for *H. pylori* eradication was conducted in a randomized study. Infected dyspeptic patients received pantoprazole b.i.d. and clarithromycin 500 mg and amoxicillin 1000 mg b.i.d. for 7 days (PAC-7), or bismuth subcitrate 108 mg and tetracycline 500 mg q.i.d. and metronidazole 1000 mg q day for 7 days (BTM-7); bismuth subcitrate 108 mg and tetracycline 500 mg, both q.i.d. and Metronidazole 1000mg for a total of 14 days (BTM-14) outcome was assessed with the 13 C-urea breath test.

Pretreatment Metronidazole resistance (MR) was 53 percent and Clanithromycin resistance was 8 percent. Medication rates were 74 percent for eradication rates for Metronidazole-sensitive/Metronidazole-resistant. Rates were 74/87 percent with PAC-7, 80/81 percent for PBTM-7, compared with 76/55 percent for BTM-14. Noncompliance was greater with the 14 day regimen, as were moderate to severe adverse events with associated discontinuation.

It was concluded that one week PPI triple therapy is well tolerated and effective. The addition of PPI to bismuth triple therapy allows reduction of treatment duration with improved efficacy and tolerability, despite a high rate of MR. Quadruple therapy appears to have overcome pretreatment MR in most cases. Two week bismuth therapy is significantly inferior to quadruple therapy. (Katelaris PH, Forbes GN, Tally NJ, Crotty

AD. "Australian Pantoprazole *H. pylori* Study Group." *Gastroenterology,* 2002; Vol. 123, pp. 1763-1769.)

Entecavir Vs. Lamivudine in HBV

A 24-week, double-blind, randomized, multicentered phase II clinical trial was carried out and reported, comparing the safety and efficacy of Entecavir with Lamivudine in chronic HBV infection. Entecavir reduced HBV DNA by an additional 1.28 log to the tenth at the 0.5 mg per day dose over Lamivudine and 83.7 percent had an HBV DNA level below the lower limit of detection of the quantiplex-branched DNA assay, compared with 57.5 percent with 100 mg per day Lamivudine.

In both treatment arms, very few patients achieved HBeAg loss and/or a seroconversion by week 22, with more ALT normalization at that week with Entecavir over Lamivudine. Entecavir was well tolerated and adverse effects were mild to moderate and comparable in all study arms.

The study showed that Entecavir has potent antiviral activity against HBV, superior to Lamivudine in chronically-infected HBV patients. (Lai CL, Rosnawati M, Lao J, et al. "Entecavir is Superior to Lamivudine in Reducing Hepatitis B Virus DNA in Patients With Hepatitis B Infection." *Gastroenterology,* 2002; Vol. 123, pp. 1831-1838.)

TIPS Vs. Paracentesis Plus Albumin in Cirrotic Ascites

Seventy patients with cirrhosis and refractory ascites were randomly assigned to TIPS (35 patients) with repeated paracentesis plus intravenous albumin (35 patients). The primary end point was survival without liver transplantation. Secondary end points were complications of cirrhosis and causes.

Twenty patients treated with TIPS and 18 with paracentesis died during the study period. Seven patients in each group underwent liver transplantation. The probability of survival without liver transplantation was 41 percent at one year and 26 percent at 2 years in a TIPS group, as compared with 35 percent and 30 percent in the paracentesis group. In a multivariate analysis, only baseline blood urea nitrogen levels and Child-Pugh scores were independently associated with survival. Recurrence of ascites and development of hepatorenal syndrome were lower in the TIPS group, compared with the paracentesis group. The frequency of severe hepatic encephalopathy was greater in the TIPS group. The calculated costs were higher in the TIPS group than in the paracentesis group.

It was concluded that inpatients with refractory ascites (i.e., TIPS), lowers the rate of ascites recurrence and the risk of hepatorenal. syndrome. However, it does not improve survival and is associated with increased frequency of severe encephalopathy and higher costs, compared with repeated paracentesis plus albumin. (Gines P, Uriz J, Calahorra B, et al. for the International Study Group on Refractory Ascites in Cirrhosis. *Gastroentenology,* 2002; Vol. 123, pp. 1839-1847.)

Extra-Hepatic Manifestations of Hepatitis C

A hospital-based, case-controlled study examined all cases of HCV-infected patients hospitalized during 1992 to 1999 and randomly chose control subjects without HCV, matched with cases on the year of admission. The inpatient and outpatient files were searched for several disorders involving the skin, kidneys and hematologic system, as well as endocrine and rheumatologic disorders. The association between HCV and these disorders were examined in multivariate analysis, with controls for age, gender, ethnicity and period of military service.

A significantly greater proportion of HCV-infected patients had porphyria cutanea tarda, vitiligo, lichen planus, cryoglobulinemia and membranoproliferative glomerulonephritis. No significant difference was noted in other disorders studied, statistically adjusted for age, except for non-Hodgkin's lymphoma, which became significant after age adjustment.

Patients presenting with the above disorders should be tested for HCV infection. (El-Serag HS, Hambel H, Yeh C, Radeneck L. "Extra-Hepatic Manifestations of Hepatitis C Among United States Male Veterans." *Hepatology,* 2002; Vol 36, pp. 1439-1445.)

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