hepcBC.bull
BC CHAPTERS NEWS BULLETIN
HEPATITIS C SOCIETY OF CANADA JAN 1998
Issue No. 8

HepC Q & A

by Blair Thomson, DN , CMT, and Mishel Rees, MH, WT, RM, B.Div. Both are Integrative Therapists using nutritional, herbal and body work therapies. They are co-owner/operators of Quantum Life Energy Natural Farmacy & Clinic.
Email: blairt <blairt@wimsey.com>

Question: Can protein powder be used instead of NAC (N-Acetyl Cysteine) and SAM (S-Adenylose Methionine), both of which are very expensive?

Answer: No. If you just want to provide the body with the raw materials of the various amino acids, sure, protein powder is fine as would be any other protein food. However for a therapeutic dose of any individual amino acid it would be impossible to get enough from a protein powder. Aside from cysteine, NAC production in the body requires several nutrient cofactors including B vitamins. Also NAC and SAM are both altered amino acids neither of which are found in protein powders etc but have to be produced in the body by the raw materials.

There is some information regarding NAC which I would like to share with Hep C readers: In the July/ August 1996 *American Journal of Natural Medicine*, Michael T. Murray, N.D., cites research which questions the efficacy and possibly the safety of using NAC to increase glutathione levels as it may actually increase oxidative damage. This actually happened in test results with six healthy volunteers at a dosage of 1.2 grams per day.

In research comparing NAC with vitamin C to increase glutathione levels, vitamin C was shown to be more effective & far cheaper than NAC. Dr. Murray notes, "Measurements of glutathione (GSH) levels indicated that 3 grams of vitamin C per day increased white blood cell GSH four-fold and plasma (blood) GSH levels eight fold. NAC increased white blood cell 3.5-fold and plasma two to five-fold. Based on these results, it was decided that vitamin C would

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HEP C TREATMENTS

From the annals of this year's NIH Consensus Development Conference on Management of Hepatitis C comes an interesting article, "Other Options for Treatment of Hepatitis C," by Herbert L. Bonkovsky, M. D.

This article stresses the need for more effective therapy, a need demonstrated by the continuing search for better treatments. The general concensus now is that present treatments are far from perfect, where the goal of treatment is seen as ridding the body of all detectable virus. Unfortunately, it is becoming increasingly obvious that this goal is difficult, if not impossible. Therefore, the medical world is choosing less satisfactory, but useful, goals, such as lowering the viral count (and thus the risk of passing on the disease), reducing liver inflammation, and slowing down the rate of progression, which would delay the onset of cirrhosis and liver cancer.

Other methods of treatment other than Interferon and Ribavirin have been tried, one of which is iron reduction. Iron is necessary for almost all organisms to multiply. Patients with infections or inflammatory conditions have low iron levels in their blood. The body produces excess concentrations of iron help the body to fight infection due to bacterial and fungal infections, and perhaps in viral infections, as well. Researchers have studied the role iron plays in viral hepatitis for at least 15 years, by observing patients with hepatitis B. Those with high levels of iron in their blood had more of a chance of developing chronic infections than those with lower levels. Other reports associate stored iron in the liver with the development of scarring and liver cancer in cases of hepatitis B.

Higher levels of iron in the blood correspond to a poorer response to IFN therapy, as well, and complete responders usually have lower levels than non- or partial-responders. Lack of evidence of iron storage in samples from portal tracts seems to correspond to a better response to IFN therapy.

Blood letting alone (phlebotomy), without

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COMING UP:

Victoria Chapter Meetings: Last Wednesday of each month 1 - 3 PM, and again at 7-9 PM, St. John the Divine Church Lounge,1611 Quadra St. (Entrance through the rear, marked Annex) NEXT MEETING**:** Jan. 28.

Penticton Chapter Meetings: Third Thursday of every month, 7-9 PM, Penticton Health Unit - Board rooms. NEXT MEETING: Jan. 15

Kelowna Chapter Meetings: Last Saturday of every month, 1-3 PM, Rose Avenue Education Room in Kelowna General Hospital. NEXT MEETING: Jan. 31

Nanaimo Chapter Meetings: Second Thursday of every month, 7 PM, Health Unit-Central Vancouver Island, 1665 Grant St. NEXT MEETING: Jan. 8.

Vancouver CLF Support Group: Next Meeting: Thurs., Jan. 8, 7:30-9:30 PM, Vancouver General Hospital's Heather Pavillion, Lecture Hall B. Facilitator: Yvonne Kwok, a nurse specializing in hepatitis.

Sunshine Coast Support Group- Meetings: First Thursday of each month, 7:30 PM, Coast Garibaldi Health Unit in Gibsons. NEXT MEETING: **NOTE: Jan. 8.** Contact Carol for more information: 886-4298 or email her at Carol <ryker@cheerful.com>

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(*A limited number of newsletters will be available free of charge at the meetings, as well.)*

THANK YOU!

Victoria Chapter HeCSC acknowledges the personal donations, donations in kind and memorial donations received to date, and the following for discounts, donations of services, or equipment: Monk Office Supply. CFAX 1070 Radio, and Apple Canada.

The deadline for any contributions of hepc.bull is the 22nd of each month. Please contact: Joan Diemecke at Tel/FAX (250) 479-5290 or Darlene Morrow at FAX (604) 987-7396
1203 Plateau Drive, North Vancouver, BC, V7P 2J3
email:
pdiemecke@compuserve.com or hepcbc@sprint.ca
The editors reserve the right to edit and cut articles in the interest of space.

ADVERTISING:*The deadline for placing advertisements in the hepcBC.bull is the 15th of each month. Rates are as follows:*
Newsletter Ads:
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whole page:
$60 per issue
$600 for 12 issues
1/2 page:
$30 per issue
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MEMBERSHIP DESK

Reminder:- Any change of address, phone number or Postal Code, please let your phone contact (in Victoria) or your Chapter Secretary (B.C) know at your earliest. It saves our meagre funds. Thanks.

HeCSC Victoria Tel. (250) 388-4311
xx204@freenet.victoria.bc.ca

JIM LODGE STEPS DOWN

Recently recovering from a bout of pneumonia, Jim Lodge, Victoria's vice-chairperson, has stepped down. Jim joined our group shortly after his wife died of hepatitis C. He became a member of our steering committee, and eventually, co-chair of the Victoria Chapter. One of his projects has been setting up the BC membership data base on the computer. If that weren't enough, he has faithfully greeted those who attend our meetings each month, and overseen the labeling and mailing of our newsletter. He has been instrumental in obtaining many of our corporate donations, and done most of our banking. The coordination of our volunteers and the organization of our office have also fallen onto his shoulders. In short, his labour has been invaluable, and we will miss him more than words can tell. In mourning the passing of his wife, Jim has given life to our group. How we shall survive without him remains to be seen.

CANADIAN LIVER FOUNDATION

Spring For Daisies: Volunteers are needed immediately to sign up for the *Spring for Daisies* campaign. We still need people to help in both the public and corporate portions of the campaign. Volunteer training will take place on February 21 & 28. Please call the regional office at (604) 681-4588 for more info.

Casino Nights: Volunteers needed for Jan. 01 and March 09/98. The Casino event will take place at the Quality Inn, 725 SE Marine Drive, Vancouver. Different shift options are available and it would be great if we could have people interested sign up as soon as possible as all volunteers must be trained prior to the casino date. Interested individuals can call the regional office at (604) 681-4588.

Living With Liver Disease Programs: We are taking registration for the Living With Liver Disease Programs. Vancouver begins Jan. 26 at Vancouver General Hospital Heather Pavilion, Lecture Hall B (7pm-9pm) and the Victoria program will commence Feb. 23 at Victoria General Hospital Lecture Hall (7pm-9pm). Call (604) 681-4588 or 1-800-856-7266 to register. These are free sessions and are available to anyone interested.

Gala Fund-raiser: The Canadian Liver Foundation is hosting its first annual Gala Fund-Raising Weekend, featuring Joelle Rabu in Concert on March 28 and 29, 1998 at the Vancouver East Cultural Centre.

Saturday, March 28: An Intimate Concert with Joelle Rabu. 10% of all ticket sales and sale of CD and tapes will be donated to the CLF. Tickets- $20.00/$18 seniors and students.

Sunday, March 29: CLF Gala Fund-Raising Evening with Joelle Rabu - includes reception and silent auction. Tickets - $75.00/person Tickets available at all ticketmaster locations or by dialing (604) 280-4444 or <www.ticketmaster.ca >

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Toll Free: 1-800-856-7266

HAPPY NEW YEAR

SQUEEKY'S CORNER

Me, Sex and the Other Guy

Recently there's been a lot of flack going round about sexual transmission of HCV and we ain't talking Roberta. Some people get so frightened when they find out they have the virus that they stop having relations with their partners, and, as a result, many wonderful marriages have come to an end in bitterness and tears. But, there has been a lot of talk recently on the HEPV-L list about sexual transmission, and several members have written in with their stories, stories which state that their hep was sexually transmitted. Not that I want to split hairs here, or anything like that—this is way too serious a subject to squeek about—but I think it's important to understand that by "sexual transmission" we may be talking about an activity that is larger than the sexual act. Or are we? Is HCV transmitted during the act of sexual congress, or can it be spread from partner to partner through more "innocent" activities, such as kissing, shared coffee cups, a lick of somebody's fork? I don't know, I'm just asking. Most recent studies suggest that although the HCV virus can be found in bodily fluids, the form and quantity of the virus is such that it is highly unlikely that contagion be an issue. However, if this were the case (i.e., lateral transmission from bodily fluids) then the incidence of HCV in families would be much higher, as is the case with Hep B, where lateral transmission is a serious concern. Is HCV spread laterally? Should we have our children tested? All the studies available say no. And yet, the medical profession is still at a loss to explain the origins of many cases of HCV, publicly preferring to lay the blame on drugs and ethnic lifestyles.

Speaking of which, recently, it was brought to my attention that there are many HCV positive children in the Aboriginal communities here on Vancouver Island. How did they get their Hep? What is the mitigating factor? Does the medical community have an answer? I'm working on it, and as soon as I find out, I'll let you know. Meanwhile, here's some stuff hot off the press about why you shouldn't be worried about getting or spreading HCV sexually.

1. "Safer Sex Practice for Chronic HCV Carriers: Is It Necessary?"

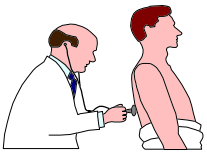
According to an abstract submitted by the authors to the First Australasian Conference on Hepatitis C, held March 16-18, 1997, in Sydney, Australia, "The efficiency of sexual transmission of hepatitis C virus (HCV) is an important issue for individuals with HCV infection and the role of sexual transmission in the epidemiology of HCV infection continues to be debated. In particular, whether HCV-discordant couples in established monogamous relationships should be advised to use condoms is controversial. We have routinely offered testing of the current heterosexual partner to Sydney donors identified anti-HCV positive attending for follow-up since January 1994. As at September 1996, the partners of 40 such donors had been tested. Only one of the 40 partners tested anti-HCV positive. This partner had an independent established parenteral risk factor for HCV infection. The median duration of the couples sexual relationships was five years (range four months to 42 years). Thirty-eight couples reported rarely or never using condoms in their sexual relationships; two couples reported using condoms for the majority but not all of their sexual relationships. Our findings support larger epidemiological studies in blood donors, multiply transfused patients and recipients of contaminated Rh anti-D immunoglobulin which suggest that heterosexual transmission of HCV is extremely uncommon. We counsel couples in established monogamous relationships that it is probably unnecessary to modify their sexual practice, other than to consider using condoms during menstruation, anal intercourse or when genital ulceration is present."

AUTHORS: A.R. Davis and A.M. Kowalik. Affiliations not provided.
SOURCE: ©Hepatitis Weekly, 9/29/97, p16, 1/2p

2. "Absence Of Hepatitis C Virus Transmission but Frequent Transmission Of HIV-1 from Sexual Contact with Doubly-Infected Individuals"

Hepatitis C virus (HCV) is transmitted through infected blood and blood products, but evidence of other routes of transmission is less clearly understood. In a study designed to examine human immunodeficiency virus (HIV) transmission, the prevalence of HCV has also been measured. Sixty-one couples were analysed, 30 in which partners were at risk through sexual contact alone, of whom 12 (40%) became infected with HIV and none with HCV. Thirty-one partners were exposed sexually and additionally through intravenous drug use. Of these, 16 (52%) became infected with HIV and 25 (80%) contracted HCV infection. These findings support the evidence of others that HCV is only rarely transmitted by sexual intercourse in heterosexual relationships and that HIV is not a cofactor for HCV transmission.

Author: Jr Robertson, Muirhouse Med Grp, 1 Muirhouse Ave, Edinburgh Eh4 4pl, Midlothian
Source: Journal Of Infection, 1997 Sep;35(2):163-166



FOUR HCV CLINICAL TRIALS IN BC

1. Interferon and Ribavirin Combination Therapy: Non-responders or relapsers to interferon alone are being studied in a combination therapy trial using 3 million units of interferon injected three times a week (which the patient pays for) and 1000-1200 mg of ribavirin orally twice a day (which is paid for by the drug company.) **THIS STUDY WILL BE CLOSING SOON.**

2. Amantadine Therapy in Combination with Interferon in non-responders or relapsers. This trial is looking at amantadine in the treatment of HCV. **THIS IS AN OPEN STUDY**.

3. PEG Interferon Trial: Pegylated (PEG) Interferon is a long acting interferon that only requires a once a week injection. Patients are randomly assigned to one of two therapies:

a) PEG interferon injection once a week OR

b) induction of Interferon at a high dose for one month followed by the standard dose of 3 million units three times a week for the duration of the trial. This trial is for a period of one year and the cost of the drug is paid for by the drug company and is **OPEN to naive patients only** (not previously treated with interferon).

4. Low Dose Maintenance Schedule with Interferon: This trial will begin sometime in the new year and will look at low dosage maintenance therapy of interferon.

CUPID'S CORNER

This column is a response to requests for a personal classified section in our news bulletin. Here is how it works:

To place an ad: Write it up! Max. 50 words. Deadline is the 15th of each month and the ad will run for two months. We'd like a $10 donation, if you can afford it. Send checks payable to **HeCSC Victoria Chapter**, and mail to R. Hicks, Box 263-453 Head St., Victoria, BC V9A 5S1. Give us you name, tel. no., and address.

To respond to an ad: Place your written response in a separate, sealed envelope with nothing on it but the number from the top left corner of the ad to which you are responding. Put that envelope inside a second one, along with your check for a donation of $2, if you can afford it. Mail to the same address as above.

Disclaimer: R. Hicks and/or HeCSC cannot be held responsible for any interaction between parties brought about by this column.

Ad No. 5

SWM 7/7/47. Employed. Healthy. 5'8 1/2", 170 lbs. Considered attractive. Spiritual. Dreamworker. Tai Chi. Mindful/Awareness-Meditation. Vegetarian. Seven years sober and celibate. No assets. Poor but happy! Trained caregiver. I do not expect you to be like me. Be yourself. Reach out. Seeking Soulmate/Lover.

(Continued from page 1)

be given for one year at the 3 g per day dosage. At the end of a year glutathione levels remained elevated, the hematocrit increased from a baseline 25.4% to 32.6%, and the number of immature red blood cells (reticulocyte count) decreased from 11% to 4%. The results indicated that vitamin C decreased cellular damage in patients with hereditary glutathione deficiency and is more effective and less expensive than NAC."

"Vitamin C works along with antioxidant enzymes such as glutathione peroxidase, catalase, and superoxide dismutase. Vitamin C is also responsible for regenerating oxidized vitamin E in the body, thus potentiating the antioxidant benefits of vitamin E. When we compare the 'super antioxidants' to vitamin C in terms of cost to benefit, vitamin C comes out far superior."

DIET and the HOLIDAYS

Darlene Morrow, BSc

During the holidays our careful diets may be forgotten due to the festive social gatherings and overabundance of food that is prevalent. Certainly it is acceptable for us to loosen up a bit and indulge in foods that we wouldn't normally eat. But, before you find yourself feeling the effects of that change in diet you might want to keep several things in mind. The most important things to watch are fat, protein and salt.

Fats are digested with bile which is produced by the liver. The bile breaks apart the fat into smaller parts so that enzymes in the gut can facilitate its absorption. Monitoring your fat is particularly important for those of you with steatosis (fatty deposits in the liver). Some ways that you can limit fats in your own cooking and baking are as follows:

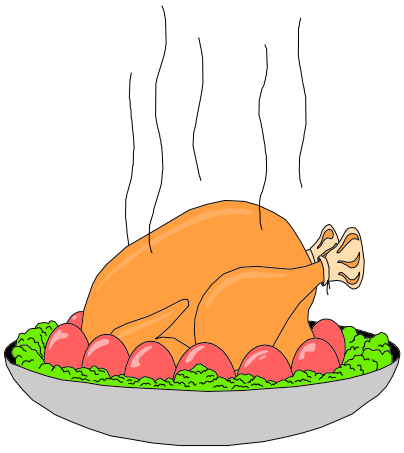
1. Use evaporated skim milk instead of heavy cream.
2. 1/2 cup of oil or margarine (in baking): substitute 1/2 cup of applesauce OR 1/4 cup of applesauce + 1/4 cup of buttermilk OR 1/2 cup baby food prunes.
3. 1/2 cup of oil (in sauces or marinades): substitute 1/2 cup of defatted chicken broth OR 1/2 cup unsweetened pineapple juice.
4. 1/2 cup margarine or butter (for icings): 1/2 cup marshmallow creme.
5. 1 ounce of unsweetened chocolate: substitute 3 tablespoons of unsweetened cocoa powder.

Proteins are necessary for tissue growth and repair. Approximately 1.0 to 1.5 gm. of protein per kilogram of body weight is recommended daily for regeneration of liver cells in non-cirrhotic patients. The protein is broken down into amino acids. The amino acids contain ammonia which must broken down by the liver into urea which is then excreted by the kidneys. Some experts believe that the ammonia can lead to encephalopathy in susceptible patients with cirrhosis.

Encephalopathy, or impaired mental status, includes symptoms of disorientation, short term memory loss and confusion. While the exact cause is not fully understood, many people feel better when they restrict their dietary protein. However there is no consensus here. Some experts do not believe there is a link between dietary protein and encephalopathy while others believe in drastically reducing animal protein in order to help improve mental status. If you find that you are experiencing some of these symptoms, you may want to turn down that second helping of turkey.

Salt restriction in patients with ascites (abnormal accumulation of fluid in the abdomen) is also recommended. This condition can occur with cirrhosis. Each gram of sodium that you consume can result in the accumulation of 200 ml. of fluid. So watch out for any packaged or pre-prepared foods and leave the salt shaker on the table.

References:
1. DIET AND YOUR LIVER
From the American Liver Foundation
2. DIET AND HEPATITIS C by Melissa Palmer, MD source:
<http://www.liverdisease.com/diet.html>
3. Healthy Homestyle Cooking by Evelyn Tribole, MS, RD



BOOK REVIEWS

Both of the following books were to be found in a BC bookstore just before Christmas:

Living With Hepatitis C. Richard English and Dr. Graham Foster. Robinson Press, 168 pp., $17.99 Can.

Richard English, a Hep C sufferer and a Master of Philosophy, has teamed together with a liver specialist to produce a guide geared to educating the patient about most aspects of this disease. Easy to understand, the book gives the basics and includes up-to-date, and accurate, if not simplistic, information. English illustrates his points with personal stories, providing interesting, as well as informative reading. Peering into the psychological labyrinth of the mind of the patient dealing with the disease, he provides an excellent section on day-to-day coping.

On the downside, I found the book lacking in its discussion of treatment options, in both the allopathic and alternative areas. The author is apparently neutral, and claims to support both types of treatment; however, the lack of comprehensiveness—i.e., I found that neither Amantadine nor Thymosin was mentioned—leads me to question his intentions.

Other topics the author deals with include an explanation of the disease, tests, and avoiding the spread of Hep C. He also gives us a straight-forward description of end-stage liver disease and transplants. Compared to Peppermint Patti's FAQ, the book is much shorter, but also less informative.

Anne Animas

Hepatitis C: A Personal guide to Good Health. Beth Ann Petro Roybal. Ulysses Press, 152 pp., $19.95 Can.

You know gals, I was never one to be a party pooper. And hey, I got hep too so I know how it feels. But this book makes me feel *fat*. Too sweet and low on nutritional value if you know what I mean.

Sure, if you just got hep, you don't have a computer and can't get a hold of Peppermint Patti's FAQ, or you live in Timbuctoo—or *wherever*—and never met another hepper FTF or stuff like that, then this book is a good place to start. Don't get me wrong. I like it. But it's better off as an article in *Good Housekeeping* than a book. It's like when we were 13 and wanted to make a good impression: way too much padding.

Anyways, I better tell you something about the book or you'll just think I'm bitching cuz I didn't write one, or maybe cuz I don't have 4 names that sound like more like "retro-toyball". Sheesh! Get a life.

Seriously though: old Retro does tell you about the liver and viruses and treatments and tests and procedures and has a really good glossary at the back. So if you don't know much or anything you'll get quite a bit out of this book.

What really irks me though is when she says things like: "If the liver completely fails to function ... transplantation may be an option to consider" (26). *MAY BE AN OPTION*!!! Is breathing out an "option" after breathing in? Is "death" an "option" {smouldering anger--ed.}. Or, like when she recommends an exercise program for heppers and suggests a minimum of 30 minutes of aerobics 3 times a week. Like, HELLO??? Like, how many heppers do you know? Like, sometimes I can't even get out of bed, lady—nor can *LOTS* of heppers I know that I met on the HEPV-L list and on email, etc.

So: if you think that HCV is a recreational disease, sort of like going for a walk with your dog and your kids in a stroller, then this is the book for you. But nobody should really get mad at Ms. Toyball: she's just passing along the misinformation she got from the NIH consensus (Big Sister in the US of A) who would have us believe that, afterall, HCV isn't that serious--yur gonna die from bubkas before the dragon gets you. And since the NIH can't find a cure (maybe because they spend less than nothing on research) the focus is now on "management," which, if you think about it, is really convenient. This way, if you die from the stuff, well, I guess it was only an "option."

Sue Denham

(Continued from page 1)

IFN, leads to improved ALT levels in perhaps 50% of subjects, and seems to lead to lower viral levels, as well.

This article also discussed Antioxidant and anti-inflammatory agents. Among them was N-acetyl cysteine (NAC). In chronic Hep C, as well as in other liver diseases, oxidative stress increases while plasma and liver GSH levels decrease. NAC alone doesn't seem to have much effect, but when combined with IFN, it seems to improve the response. Vitamin E seems to help avoid the development of fibrosis, as do aspirin, other NSAIDS, pentoxyfylline, and colchicine. (Ed. note: beware of bleeding disorders associated with aspirin, etc.) Other treatments, such as Chinese remedies and herbs, seem to improve blood tests, but it isn't known yet whether this indicates improvement in the progression rate of the disease, as well.

Supplemental (tauro-) ursodeoxycholic acid has improved ALT levels, both alone and combined with IFN. These bile salts seem to improve the state of liver inflammation.

Substances that effect the immune system, such as granulocyte/monocyte colony stimulating factor (GM- CSF) have not shown much promise. Not only are they expensive and not tolerated well, but they seem to have little effect except to raise neutrophil levels in patients who have severe neutropenia during IFN treatment. On the other hand, thymosin alpha-I, given together with IFN, produces very favourable results when comparing ALT levels in trial patients.

Amantadine and isoprinosine are being investigated, as well. Amantadine showed promise, and more tests are being done, but the isoprinosine didn't. HCV protease and RNA polymerase inhibitors are also under investigation at the present time.

Dr. Bonkovsky believes that several therapies, other than IFN and ribavirin, have good effects on Hep C. Combination treatments will probably be more effective than just one treatment alone. We urgently need more clinical trials.

BIOPSIES: A COMPARISON

I have heard many biopsy stories from people in my support group and from those on the internet. They have included a man whose bile duct was perforated and a woman whose blood covered the room. They also include people who engaged in all normal activities within a few hours after the procedure.

My first biopsy, performed in December of 1995, took place in a Victoria hospital. My local gastroenterologist recommended the physician as being the best liver biopsy person in town. My doctor told me to expect to stay overnight, and I did. I had blood tests done early in the morning and took up temporary residence in a private room. Eventually the nurse wheeled me off to meet my fate. I requested, and was refused, any sort of medication to ease either pain or anxiety. The nurses, who were very caring, did cover me up with a heated blanket to stop my shivering, and one held my hand during the biopsy. The doctor told me he would take 3 specimens. The first was painless—after the initial freezing procedure, which was easy to endure—and I was remarking on that fact when he took the second specimen. Perhaps it was because I wasn't holding my breath that I experienced severe pain across my abdomen and in my right shoulder. The doctor immediately checked the ultrasound machine for any complications and decided to forgo the third sample. I had a big drop in my blood pressure and it hurt me to breathe or move for a couple of days because of the pain, which I could control with Tylenol. The hospital released me the following morning.

I was not overjoyed to learn that I would have to endure yet another biopsy at the end of my Interferon/Ribavirin trial.

The time arrived this last December 15th. I decided to have the biopsy done over in Vancouver. At least that way, I wouldn't have to wait months for it. I asked to be pre-medicated, and the doctor told me to take 1 mg. of Ativan one hour before. I rambled happily into the hospital on the arm of a fellow Hep C-er. I was able to find my way to the ultrasound department, where they issued me a gown and escorted me—walking—into the room. Dr. Yee was very nonchalant and chatty, and his air was very reassuring. The nurse didn't hold my hand, though. The doctor said he only needed one sample, performed the freezing, and the whole thing was over very quickly. The only pain I felt was during the freezing, which is similar to the freezing done at my dentist's office. I had no shoulder pain, or any other pain after the procedure. I felt as if I could have walked out of the room and gone straight home. They had me wait outside the ultrasound room, lying on my right side, for an hour, though, just to be safe. I am still amazed at how smoothly everything went, and I will not be so afraid if I have to have another biopsy. I was able to drive myself back to Victoria the next day (but I didn't because "rent-a-hepper" came through with a chauffeur).

I guess the points I would like to make are that most biopsies are probably relatively painless. If you can, get support from your friends in your support systems who have gone through the procedure. I found it really helps. It may also be beneficial to go to a centre where they perform biopsies often.

Joan Diemecke

FROM THE OKANAGAN

Editors' note:

Leslie could not contribute to the newsletter this month, due to an accident to a family member. She did send us the following news:

The article "Who Should Receive Compensation" in last month's hepcBC.bull was not written by Leslie. It was submitted by a HeCSC member from Saskatchewan, who wishes to remain anonymous.

IN CASE YOU'RE INTERESTED: There will be a Health Minister's Conference on Compensation on January 29th and 30th in Vancouver, B.C. Leslie will be attending representing transfused patients.

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(604)874-7180 (FAX)

also:
Dempster, Dermody, Riley and Buntain
William Dermody
4 Hughson Street South, 2nd Floor
Hamilton, Ontario L8N 3Z1
(905) 572- 6688

The toll free number to get you in touch with the Hepatitis C Counsel is 1-(800)-229-LEAD (5323). It may not be working yet so please be patient.

TRACEBACK PROCEDURES:

This information is for anyone who has received blood transfusions in Canada, if they wish to find out if their donors were Hep C positive.

TRACEBACK INQUIRIES

Contact:
Dr. Lisa Jeppesen, Dr. P Doyle,or Glenda
The Canadian Red Cross Society
4750 Oak Street
Vancouver, BC, V6H 2N9
1-888-332-5663 (local 207)

COMBINATION THYMOSIN ALPHA(1) AND LYMPHOBLASTOID INTERFERON TREATMENT IN CHRONIC HEPATITIS C

Background-Monotherapy for chronic hepatitis C using interferon (IFN) results in a very small proportion of patients exhibiting a sustained response. Clinical trials assessing the benefit of combination drug therapy may provide evidence of improved treatment response over that seen with single drug treatment.

Aim-To assess the response in patients with chronic hepatitis C to one year of combination treatment: thymosin alpha(1) (T alpha(1)), 1 mg twice weekly, and lymphoblastoid (L)-IFN, 3 MU thrice weekly.

Patients and Methods-Fifteen patients with serum HCV RNA positive chronic hepatitis C were studied. Eleven patients were treatment naive and four had failed previous standard IFN therapy. Thirteen patients were HCV RNA serotype 1b. All patients were given combination T alpha(1) and L-IFN therapy for one year with a six month follow up period.

Results-Six months after initiation of treatment seven patients (47%) were sera HCV RNA negative and at completion of the one year treatment 11 (73%), including two who had failed

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DAVE'S COLUMN

THE WHY AND HOW OF BEING AN OPTIMIST

Let's look at the dictionary definition of the word *optimism*.

"Optimism: The inclination to take a hopeful view; the tendency to think that all will be for the best; the doctrine that this world is the best of all possible worlds; sanguine temperament."

"Sanguine: Cheerful, hopeful, confident, always anticipating the best."

We can only be an optimist if we want to. We are not going to change our outlook on life by searching for it externally. We have to want to change our attitude towards life and then find a way to actually do it. That's why using drugs or alcohol or engaging in other types of self-indulgent behaviour will ultimately not effect a permanent positive change in our lives. Let's ask ourselves some basic questions: Is the glass half full or half empty? Is the day partly sunny or partly cloudy? Our answer will go a long way in determining whether or not we're a basic optimist or a raging pessimist.

There is absolutely no question that how and what we think has a profound effect on our health. I'm not a psychologist or a medical expert, so I cannot explain all the chemical reactions that occur when we use positive or negative phrases to describe an object or situation. If we see the glass as half full, the implication is positive, and we cannot help but derive benefit from viewing the glass of water this way. Now this example may sound simplistic, but sometimes the simplest examples are, quite simply, the best. The power of the mind is underestimated in these times of virtually complete dependence on technology. We need to have more confidence in our own thinking, especially those of us who suffer from a chronic illness such as hepatitis C. We need all the help we can get, and who better to turn to for help but our own selves, and our own minds. Let's tell ourselves every day that this is just a little bug and we're not going to let some little bug ruin our lives, even though we feel tired and achy and cranky all the time.

We need to look for the positive in everything that happens, and, by doing so, we will go a long way towards lessening the impact of this terrible disease. We need to use words like *love*, not *hate*, and learn how to live in love. We need to develop a spiritual outlook on life even if it just means practising some basic commandments and not specifically any religion. If we smile, there's a good chance the world will smile back at us, and this can only be a good thing. Many of us find some kind of perverted satisfaction out of railing against the world in all its decadence. Watching the news and reading the newspapers keeps us informed, but at best gives us only a skewed worldview and at worst, keeps us in a state of...well...dis-ease.

Finally, meditation will help to turn that negative inner monologue down to a dull roar and bring peace to a restless mind, and there can't be a more optimistic endeavour than striving for a peaceful mind.

In previous newsletters I have attempted to show examples of what being an optimist means to me, so I'm not going to repeat myself here. I would, however, like to say in closing that there have been times when I've felt absolutely the furthest from being an optimist, but I've never given up. Almost, but never quite I always remember that it is the journey towards understanding that counts, and not the destination.

Does hepatitis C affect women differently?

Hormonal effects of hepatitis C can involve menstrual irregularities, particularly if you are experiencing significant hepatitis C symptoms. It is important that your general health is checked as well as your hepatitis C monitored.

Birth control: If you are experiencing significant hepatitis C symptoms, using the oestrogen-based contraceptive pill may be inadvisable. In these cases, the progesterone-only pill or Depo-Provera may be preferable. In any case, you should consult a woman's health practitioner.

Hormone Replacement Therapy: If you have severe hepatitis C symptoms you may need to discuss with your doctor or specialist whether hormones should be used for menopausal symptoms. If this is the case, external vaginal creams and skin patches are probably better than pills.

http://www.span.com.au/hepatitis_c/info.html#vir

How E. Coli Can Affect HCV Cloning

From the article: "How Escherichia coli can bias the results of molecular cloning: Preferential selection of defective genomes of hepatitis C virus during the cloning procedure." Forns X, Bukh J, Purcell RH, Emerson SU, Proc Natl Acad Sci, USA, 1997 Dec 9;94(25):13909-13914

The HCV was cloned and attached to the bacterium, E. Coli. This altered product was then used to infect a chimpanzee which in turn got HCV. This result initially caused a lot of excitement because until this time there was no effective animal model with which to study HCV.

The original studies assumed that the clones were representative of the entire virus population. However this study found that there was a strong cloning selection for defective genomes and that most clones generated initially were incapable of expressing the HCV proteins. In fact a random look at the clones showed that only 8% were fully functional when compared to human HCV.

Further alterations were necessary to increase the number of functional clones. But nonrandom selection of clones during the cloning procedure can produce a false spectrum of genomic diversity. It can also be an impediment to the construction of infectious viral clones.

What this really means to us is that the reliability of the animal model is itself in question. Any therapies that might work in the animal model may, nevertheless, not have the same effect in humans because of slight genetic modifications. More work needs to be done in this area before it can be said that we have a good working model.

HepC BC
http://www.geocities.com/HotSprings/5670
Email: hepcbc@iforward.com
Education and Support for Hepatitis C including Canadian Information.

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previous standard IFN treatment, had negative serum HCV RNA. Six months after treatment, six patients (40%), including five with HCV type 1b, showed a sustained response characterised by a negative serum HCV RNA.

Conclusions-The results of this open label trial suggest that there may be a potential benefit to combining an immune modulator (T alpha(1)) with an antiviral (IFN) in the treatment of chronic hepatitis C. Verification of the observations in this study require completion of a randomised controlled study.

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Hepatitis C and Alcohol

Eugene R. Schiff, M.D.
NIH Consensus Development Conference on Management of Hepatitis C

Introduction

The alcoholic patient is no less subject to the spectrum of hepatobiliary disorders that may afflict the nonalcoholic patient and, in some cases, may be predisposed to liver injury because of specific socioeconomic, epidemiologic, or metabolic risk factors.

Prevalence of Anti-HCV Markers

Multiple studies have clearly demonstrated a high prevalence of anti-HCV among alcoholic patients with liver disease. Testing with supplemental assays (e.g., recombinant immunoblot assay [RIBA]) confirmed that 8~5 percent of alcoholic patients with liver disease have anti-HCV (RIBA+). The prevalence of anti-HCV is sevenfold higher among alcoholics than in the population at large (10 percent vs. 1.4 percent), but is even higher in those with liver disease (30 percent). Most of those with liver disease have detectable HCV RNA which may also be present in some anti-HCV(-) patients. Anti-HCV(+) (RIBA+) patients are likely to have HCV RNA detected, which is indicative of active viral infection, usually associated with some degree of necroinflammatory changes, with or without fibrosis, regardless of alanine aminotransferase (ALT) levels.

HCV Correlation With Severity of Liver Injury

The prevalence of anti-HCV(RIBA+) correlates with the severity of liver injury seen in alcoholic patients. Anti-HCV positivity (RIBA+) correlated positively and significantly with cirrhosis, cellular unrest, periportal inflammation, and piecemeal necrosis, in contrast to anti-HBc, which did not correlate with any of these histologic features, in a large Veterans Administration (VA) study. In a study of 144 alcoholic patients, a prevalence of 20 percent anti-HCV positivity in alcoholic fibrosteatosis, 21.4 percent in alcoholic hepatitis, and 42.6 percent in alcoholic cirrhosis, as compared to 2.2 percent in alcoholic patients without liver disease, was noted. Histologic features, with the exception of sinusoidal cellularity, were comparable in alcoholic patients with and without anti-HCV. Nishiguchi et al. performed both immunoblot and HCV RNA determinations among 80 alcoholic patients with liver disease. Patients with cirrhosis and HCV RNA had higher ALT activity than comparable patients without HCV RNA. The HCV RNA(+) patients had higher histologic activity indices (Knodell) than those without detectable HCV RNA. The presence of HCV RNA conferred a more severe degree of periportal and bridging necrosis, intralobular degeneration, focal necrosis. and Dortal inflammation.

Effect of Abstinence on Alcoholic Patients with Histologic Evidence of Chronic Hepatitis

In HCV RNA(+) alcoholic patients with histologic evidence of chronic hepatitis, abstinence was not followed by resolution of aminotransferase elevation, which has been observed in both anti-HCV(+) HCV RNA(-) and anti-HCV(-), HBsAg(-) alcoholic patients with similar histologic features. This suggests that chronic hepatitis C infection perpetuates the liver damage in these alcoholic patients who have abstained. Nevertheless, serum HCV RNA levels will decrease with abstinence.

Epidemiology of Hepatitis C Among Alcoholic Patients

The epidemiology of hepatitis C among alcoholic patients with bonafide viral C infection has not been definitively characterized. Intravenous drug abuse (IVDA) is the most common risk factor. Yet there has not been a good explanation for the disproportionately high prevalence of HCV among alcoholic patients with liver disease without a history of IVDA. Caldwell et al. found the prevalence of anti-HCV similar among patients with alcoholic liver disease who had high risk factors as compared to those without identifiable modes of parenteral transmission.

Effect of Alcohol on HCV Replication

A critical question is whether or not alcohol and hepatitis C infection are synergistic in a combined liver injury. In some patients, there are both histologic features of alcoholic liver injury and chronic viral hepatitis, but in most studies the predominant pattern is chronic hepatitis. Alcohol may enhance the replication of hepatitis C and produce a more severe injury independent of the direct alcohol-induced toxic injury. There is a correlation between HCV RNA levels and amount of alcohol consumed. Alcoholic patients with HCV infection have higher hepatic iron concentrations, which may be germane to increased HCV replication. Clinical evidence of hepatic activity and viral levels is significantly greater in those consuming greater than 10g of alcohol per day.

Effect of Alcohol on Progression of Chronic Viral C Hepatitis to Cirrhosis and Hepatocellular Carcinoma

There is a more rapid development of cirrhosis and hepatocellular carcinoma in the alcoholic with chronic HCV infection. The period from transfusion to the diagnosis of cirrhosis is shorter in the heavy drinker. The risk for the development of hepatocellular carcinoma in alcoholic cirrhotics is 8.3 times higher in the HCV(+) patients than HCV(-) patients, and the prevalence of anti-HCV among alcoholics with HCC is 50-70 percent. Therefore, alcohol may modify the replication of HCV as well as the oncogenicity of HCV in hepatocellular carcinoma.

Interferon Therapy in Alcoholic Patients with Chronic Hepatitis C

Among alcoholic patients with chronic hepatitis C who remained abstinent during therapy with interferon, there was a significantly lower rate of HCV RNA clearance in those who consumed >70g/ day of ethanol as compared to <70g/day drinkers or nondrinkers. A similar experience noted zero HCV RNA clearance in those consuming >70g/day up to the time of interferon therapy.

Conclusion

The most common type of nonalcoholic liver disease seen in alcoholic patients is chronic viral hepatitis C. Evidence accumulated thus far supports the concept that superimposed hepatitis C infection confers a more severe liver injury in alcoholic patients, possibly by enhancing viral replication. The progression of the liver disease is more rapid and the risk for the development of hepatocellular carcinoma, once cirrhosis has developed, is high. It remains to be proven whether or not successful antiviral therapy will change the natural history and improve the prognosis in such patients who abstain. Regardless, part of the mystery of why some alcoholics develop liver disease while most do not can be explained by the presence of chronic viral C hepatitis.

Ed. note: References upon request. Call Joan Diemecke (250) 479-5290