

AASLD 2005: Part 1



Liz Highleyman

The 56th annual meeting of the American Association for the Study of Liver Disease (AASLD) took place November 11-15, 2005, in San Francisco. AASLD is the premiere liver conference in the U.S., and most new and important information about liver disease is presented at this meeting. The reports in this issue of the HCV Advocate will focus on an important new epidemiological study of hepatitis C, experimental HCV therapies, and HIV/HCV coinfection. Look for further AASLD coverage in the January 2006 issue.

HOW COMMON IS HEPATITIS C?

It is usually reported that about 3.9 million people in the U.S. have contracted hepatitis C, 2.7 million of whom are living with chronic infection. This estimate is based on data from a household study, the National Health and Nutrition Examination Survey (NHANES).

But Brian Edlin, MD, from Cornell University's Weill Medical College presented evidence at AASLD suggesting that this figure is an underestimate (*Ab-*

stract 65122).¹ NHANES does not count several groups, some of which have higher rates of hepatitis C than the general population:

- Incarcerated people (nearly two million, with an estimated HCV rate of 32%)
- Homeless people (more than 800,000; estimated HCV rate 35%)
- Patients in hospitals (approximately 650,000; estimated HCV rate 17%)
- Nursing home residents (more than 1,600,000; estimated HCV rate 5%)
- Active-duty military personnel (about 1,400,000; estimated HCV rate 0.5%)

Edlin derived his population numbers from the U.S. census, the Centers for Medicare and Medicaid Services, the Bureau of Justice Statistics, and several studies published in the medical literature. He then multiplied these numbers by the estimated HCV prevalence in each group, using averages of rates seen in various studies.



IN THIS ISSUE

Healthwise:

Caring for Our Caregivers.....3

Extrahepatic Manifestations:

Pruritus.....8

Altogether, Edlin calculated that 800,000 to 1.2 million more people have contracted HCV than usually reported – for a total of about 5 million. Using accepted rates of spontaneous clearance (about 25%), 3.4 million of them currently have chronic hepatitis C. National HCV prevalence may be even higher, he suggested, because the number of unstably and sporadically housed people may greatly outnumber those who are homeless at the time of any survey.

Edlin concluded that household surveys are “an incomplete source of information about socially marginalized populations.” Using the most accurate estimate is important, he stressed, since basing public health projections on the widely reported lower figure “may underestimate the burden of liver disease we will see in coming decades.”

continued on page 2

AASLD 2005

continued from page 1

HIV/HCV COINFECTION NEWS

Given that one-third or more of HIV-positive people also have HCV, and 10% or more of individuals with hepatitis C also have HIV, coinfection is a growing concern for hepatologists and HIV specialists alike.

Sexual Transmission

The issue of sexual transmission of HCV remains controversial. Mark Danta from London and colleagues presented further data showing that a variety of factors related to sexual activity and drug use have contributed to a recent cluster of more than 200 cases of apparently sexually transmitted HCV among gay HIV-positive men in the southeast U.K. (*abstract 67040*). A molecular analysis of patients' HCV genomes revealed several distinct clusters, providing evidence for common sources of transmission. The researchers also conducted a case-control study in which 60 HIV-positive gay men with acute (recently acquired) hepatitis C and 130 matched HIV-positive/HCV-negative control subjects completed questionnaires about their risk factors during the past 12 months.

The men with acute hepatitis C were more likely to inject drugs (17% vs 7%), but the rate was low compared to other HCV-infected populations. Patients with acute HCV were significantly more likely to have engaged in unprotected receptive or insertive anal intercourse, fisting, anilingus (rimming), use of sex toys, SM, and group sex. Further, the coinfecting men were more likely to meet partners in sex clubs or bathhouses

(about 4% vs 1%) or on the Internet (49% vs 8%); had more sex partners in the past year (30 vs 10); were more likely to have a history of sexually transmitted disease (92% vs 78%); more often used "club drugs" and had sex under the influence of drugs (92% vs 62%); and were more likely to have shared paraphernalia for intranasal drug use (79% vs 49%). While all these factors were linked to a higher HCV rate, Danta stressed that it was "difficult to tease out" how much each individual factor contributed. He recommended that education about safe sex and drug-sharing practices should be the focus of public health interventions for this population.

Interestingly, outbreaks of sexually transmitted HCV like the one in London and Brighton have not been seen in the U.S. Sriganayatri Bollepalli and colleagues looked at HCV risk factors among HIV-positive and HIV-negative people in Arizona (*abstract 65573*). They found that injection drug use was the only significant risk factor that predicted HCV infection among HIV-positive men who have sex with men, and concluded that "[s]exual transmission of HCV among HIV[-positive] patients is extremely rare."

HCV Progression

Research has shown that liver disease progresses more rapidly in people with HIV/HCV coinfection, and several presentations at AASLD explored why. Sampa Pal and colleagues from Seattle found that while HCV replication in the liver is strongly associated with liver inflammation, fibrosis, and elevated ALT levels, having HIV does not appear to accelerate HCV replication (*abstract 62708*). Kathie Anne Walters and colleagues, also

from Seattle, analyzed global gene expression patterns in liver biopsy samples from 13 HCV mono-infected and 16 HIV/HCV coinfecting individuals (*abstract 66666*). They found that the gene expression profiles did not differ between the two groups, suggesting "that while the progression of liver disease may be accelerated in the presence of HIV, the actual mechanism of liver injury is similar" in both coinfecting and HCV mono-infected patients.

Cristiana Almerighi and colleagues from the U.K. reported that impaired immune regulation associated with depletion of CD4 T-cells allowed uncontrolled CD8 T-cell-mediated damage to liver cells in HIV/HCV coinfecting patients (*abstract 66254*). Isabelle Dichamp and colleagues from France (*abstract 67351*) reported that the level of HCV was higher in macrophages (a type of immune white blood cell) in coinfecting patients compared with HCV mono-infected subjects. The coinfecting individuals also showed enhanced activation of NF-kappa-B and activator protein-1, two factors that influence production of cytokines (messenger chemicals that regulate immune function). In contrast, Rachel Baden and colleagues from Boston found no significant difference in natural killer cell activity between coinfecting and HCV mono-infected patients (*abstract 65574*). Analyzing liver tissue samples from 30 coinfecting patients and 15 subjects with HCV alone, Rajalakshmi Iyer and colleagues from Chicago found that coinfecting individuals had less liver inflammation overall, but increased activation of perisinusoidal hepatic stellate cells, a type of liver cell that plays a key role in

continued on page 5

HealthWise:

Caring for Our Caregivers



Lucinda K. Porter, RN, CCRC

A diagnosis of hepatitis C virus infection (HCV) can be a life-changing event. Virtually no one reacts with indifference. Everyone has his or her own story about life with HCV. Some stories are colored with hope and encouragement, while others are dark and painful. However, the people who have HCV are not the only ones whose lives are changed after this diagnosis. Families and friends are changed. They have their own stories.

It is tempting to dismiss the fact that our disease is a shared process. It can be hard enough having HCV let alone sharing the burden of it. Telling someone we have HCV is often painful. Their reactions can feel unbearable. Our loved ones' anxieties can be more uncomfortable than our own. HCV can bring people closer, but it can also pull people apart.

Patients' feelings about HCV tend to evolve. The common initial reactions such as shock, anger, despair and denial, mutate into anything from motivation to depression. After the initial explosion of feelings, some people roll up their sleeves, get some information and devise a plan. They start acting rather than reacting.

Having a disease can be easier than loving someone who has one. When we are ill, our attention is focused on recovery. In contrast, being a witness to someone's illness can generate helpless and powerless feelings. Our loved ones sometimes don't know what to do with themselves. They are not the patient. The focus isn't on them. They have no control over their loved one or HCV. They are affected nonetheless.

When working as a birth coach I made some observations that may illustrate my point. During the birth process, the laboring mother usually focuses on the all-consuming work at hand. Her partner, however, can be falling apart. Being a witness to someone's suffering is painful. Feeling useless and helpless are common reactions. Because of this, partners desperately want to help, especially if they can ease their partner's pain. The partner may try to comfort or stroke the woman and this may not be what she wants. Many women have yelled at their mates during labor. There is little or no conflict when a partner understands what the laboring mother

wants and is guided on how to accomplish this.

Hepatitis C is certainly not as painful or intense as labor, but the concept applies. We can help ourselves by involving our caregivers. In this article, the term caregiver refers to those closest to us who help us manage our lives and health. Often this role falls to a spouse or partner, but it can be a parent, child or friend. The caregiver is the person most likely to be affected by our illness.

Caregivers can be both professional and non-professional. Professional caregivers are usually nurses, home health aides, and such. The average person with HCV usually does not require the services of a professional caregiver unless HCV has progressed to an advanced stage. A caregiver may have a more prominent role during HCV treatment. Although a caregiver is not necessary for treatment, people who live with HCV patients during treatment may find themselves in a caregiver role.

Caregivers are at high risk for health problems. According to the Family Caregiver Alliance, caregivers have a higher risk of mental and physical health problems than non-caregivers do. They experience depression, pain, loneliness, isolation, abandonment, loss, and grief. They experience fear – of the unknown, of death and of change. Caregivers may feel insecure about their ability to give adequate support. They may worry about the security of their future, the risk of acquiring HCV, or of being a single parent. The likelihood of any of this happening is low for the average HCV patient. However, it is normal to feel and think about these possibilities.

Former First Lady Rosalyn Carter said, "There are four kinds of people in the world: those who have been caregivers, those who are currently caregivers, those who will be caregivers, and those who will need caregivers." Giving care is a vital part of healthcare. It is important that we support the health of our caregivers. As patients, we have a responsibility to those who care for us.

1. *Keep your caregiver informed.* Nothing can feel more frustrating than being kept in the dark. Invite your care-

continued on page 4

CARING

continued from page 3

giver to your medical appointments, if this is something you both want.

2. *Be honest with your caregiver.* For instance, if you do not want your caregiver to accompany you to appointments, discuss this.

3. *Give your caregiver a role in your illness.* Your caregiver might feel less anxious and more powerful if he or she is a partner rather than an onlooker. In addition to accompanying you to appointments, they might help by going with you to a support group, doing Internet research, going for walks with you, or by doing one of your tasks that you don't feel like doing.

4. *Listen to your caregiver.* Sometimes family members feel lonely because they think it will burden

you if they discuss their feelings and problems. Invite them to talk about their feelings.

5. *Be sensitive to your caregiver's needs.* Having HCV does not give us permission to be insensitive. Your caregiver may need a weekend away or a night out. If you can't provide that, encourage your family member to take care of his or her needs, such as an evening out alone or with someone else.

6. *Appreciate your caregiver.* Few things are more powerful than expressing gratitude. A simple "thank you" takes little effort and is usually well received.

7. *Urge your caregiver to take care of his or her own health.* The statistics for caregiver morbidity and mortality are alarming. Let your caregiver know that you don't want them to be another statistic.

8. *Get help.* Chronic illness can strain even the healthiest relationships. This is particularly true during HCV treatment. Counseling can help couples and families get through difficult times.

9. *Care for your caregiver.* Encourage your caregiver to attend a support group and practice self-care.

10. *Care for yourself.* This is fundamental. You never know when you will be called upon to give care to someone else. Besides, your family and friends want you to be around for a long time.

- Family Caregiver Alliance – www.caregiver.org
- National Alliance for Caregiving – www.caregiving.org
- National Family Caregivers Association – www.thefamilycaregiver.org
- Rosalynn Carter Institute for Caregiving – <http://rci.gsw.edu>

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AASLD 2005

continued from page 2

fibrosis (*abstract 67514*). Danta's team analyzed HCV-specific T-cell responses and cytokine levels in a cohort of 18 HIV-positive and 13 HIV-negative individuals with acute HCV infection (*abstract 66233*). The coinfecting subjects showed significantly reduced CD4 T-cell responses to HCV antigens, especially NS3-5; they also had lower IL-2 levels. The researchers concluded that in HIV-positive individuals, "non-specific responses are mounted which may fail to efficiently control HCV in the acute phase of infection."

The well-documented link between coinfection and severe liver disease may not apply to individuals with well-controlled HIV thanks to effective antiretroviral therapy. Sumita Verma from Los Angeles and colleagues analyzed data from 85 coinfecting patients and 296 subjects with HCV alone (*abstract 62205*). HIV-negative subjects and HIV-positive patients on highly active antiretroviral therapy (HAART) had similar fibrosis stage (3.1 vs 3.4), necroinflammatory score, rate of fibrosis progression, cirrhosis prevalence (33% vs 41%), and mean time to cirrhosis (27.4 vs 25.1 years). In contrast, HIV-positive patients who received either no HIV therapy or only nucleoside reverse transcriptase inhibitors (NRTIs), and those who started with NRTIs followed by HAART after 1996, had significantly more advanced liver disease, with higher fibrosis stage (4.6 and 4.3, respectively), faster fibrosis progression, and higher cirrhosis prevalence (68% and 60%). The probability of developing cirrhosis after 25 years was 16% among HIV-negative subjects, compared

with 24% for HIV-positive patients on HAART, 38% for those who switched from NRTIs to HAART, and 72% for those who received only NRTIs or no HIV therapy. The researchers concluded that coinfecting patients who receive HAART soon after HIV diagnosis "have HCV-related disease severity comparable to HCV mono-infected subjects."

HCV Treatment

Treatment of hepatitis C during acute infection is quite successful, and this appears true for coinfecting as well as HCV mono-infected individuals. Stephanie Dominguez and colleagues from France reported that among HIV-positive gay men with acute HCV infection, 10 out of 14 (71%) who successfully completed a 24-week course of pegylated interferon (Pegasys) plus ribavirin achieved SVR (*abstract 67281*). In an interim analysis of data from a large cohort of HIV-positive individuals with acute hepatitis C in Germany, Martin Vogel and colleagues found end-of-treatment response rates of 59% (genotypes 1 or 4) and 63% (genotypes 2 or 3) after 24 weeks of pegylated interferon monotherapy (*abstract 63895*). Given that they did not receive ribavirin, it remains to be seen how many will go on to achieve SVR. In another study, Danta and colleagues compared a group of HIV-positive subjects with acute HCV treated immediately with pegylated interferon (Peg-Intron) plus ribavirin to a group who started with pegylated interferon (Pegasys or Peg-Intron) monotherapy and added ribavirin only if HCV was still detectable after 12 weeks (*abstract 67086*). They found that early ribavirin significantly improved long-term virological outcomes compared to those who started ribavirin later (63% vs 23%

SVR) – a phenomenon that has not been seen in HIV-negative individuals with acute hepatitis C.

Looking at previous nonresponders, Carroll Leevy and colleagues reported that HCV/HIV coinfecting patients unsuccessfully treated with pegylated interferon/ribavirin could achieve better results when retreated with daily consensus interferon (*abstract 67610*). In a study of 61 hard-to-treat coinfecting nonresponders (93% with genotype 1; 53% African-American) retreatment with consensus interferon plus weight-based ribavirin for 72 weeks led to a 30% SVR rate.

Maribel Rodríguez-Torres and colleagues from Puerto Rico confirmed that – as is true for HCV mono-infected individuals – coinfecting patients who do not achieve SVR can still benefit from interferon-based therapy (*abstract 67731*). The researchers analyzed paired biopsy samples from 73 coinfecting patients who either were treated with interferon (pegylated or conventional, with or without ribavirin) or received no treatment. Patients who received pegylated interferon (Pegasys) showed a significant decrease in fibrosis score between the two biopsies (-0.4 with Pegasys monotherapy; -1.4 with Pegasys plus ribavirin). (Oddly, patients treated with conventional interferon, with or without ribavirin, experienced more fibrosis progression than those who received no treatment at all.) "These results support HCV therapy as beneficial even when SVR [rates] are inferior to those achieved in HCV mono-infected patients and implies a possible beneficial effect of maintenance therapy," the researchers concluded.

continued on page 6

AASLD 2005

continued from page 5

NEW THERAPIES FOR HEPATITIS C

Current standard treatment for hepatitis C is based on interferon, an injected cytokine that stimulates the immune response. But several potential future therapies work by directly targeting HCV (see the June 2005 HCV Advocate for a look at the HCV lifecycle and new drug targets). Data on three such oral agents were presented at AASLD: a nucleoside analog, valopicitabine (NM283); and two protease inhibitors, SCH503034 and VX-950.

Valopicitabine

Christopher O'Brien from the University of Miami presented the first data from a Phase IIb trial of valopicitabine, an HCV polymerase inhibitor being developed by Idenix Pharmaceuticals (*abstract 63186*). The study included 190 patients randomly assigned to receive 800 mg valopicitabine monotherapy, one of three doses (400 mg, ramped dosing from 400 to 800 mg, or 800 mg once daily) of valopicitabine plus pegylated interferon alpha-2a (Pegasys), or Pegasys plus ribavirin. Subjects were 51-76% Caucasian, 10-23% Asian, and 10-23% Middle Eastern or Indian; fewer than 2% were African-American. All had genotype 1 HCV and were previous nonresponders who did not clear HCV with 12 weeks or more of pegylated interferon/ribavirin (relapsers were excluded).

After 12 weeks, patients in the two higher-dose valopicitabine combination arms achieved significantly greater HCV RNA suppression. Viral load declined

by 0.78 logs in the valopicitabine monotherapy arm, 1.92 logs in the Pegasys/ribavirin arm, and 2.22 logs, 2.51 logs, and 2.77 logs, respectively, in the 400 mg, 400-800 mg, and 800 mg valopicitabine combination arms. The corresponding percentages achieving early virological response (at least a 2-log reduction by week 12) were 5%, 41%, 54%, 71%, and 63%. In the 400-800 and 800 mg valopicitabine combination arms, 21% achieved at least a 4-log drop in HCV RNA. Valopicitabine was safe and generally well-tolerated, with no dose-limiting toxicities. No resistance was seen in subjects observed for six months. According to O'Brien, "These are promising results, particularly for the many treatment-refractory patients in urgent need of new therapeutic options."

SCH503034

Stefan Zeuzem from Homburg, Germany, reported on a Phase Ib study of Schering-Plough's NS3 serine protease inhibitor, SCH503034 (*abstract 67484*). In this international trial, 61 patients were randomly assigned to a 14-day course of treatment with placebo or one of four different schedules of SCH503034: 100, 200, or 400 mg twice daily (BID), or 400 mg three times daily (TID). All had genotype 1 HCV and were nonresponders to prior pegylated interferon/ribavirin treatment (less than a 2-log reduction in HCV RNA after 12 weeks). The largest reduction in HCV viral load was seen in the 400 mg TID arm; 60% of patients in this arm achieved a maximum HCV reduction of more than 2 logs (all had at least a 1-log decrease), compared with 18%, 17%, and 8%, respectively, in the 400 mg, 200 mg, and 100 mg BID arms.

ALT reduction was also seen in patients with decreased viral load. SCH503034 appeared safe and well-tolerated, with no serious adverse events. Importantly, in animal and human studies to date, researchers have not seen the type of cardiac toxicity that doomed Boehringer Ingelheim's BILN-2061, an earlier HCV protease inhibitor. One patient developed the V170A mutation, which has been linked to SCH503034 resistance in laboratory studies.

Zeuzem also presented data from a second small trial showing that SCH503034 exhibited promising activity when combined with pegylated interferon alpha-2b (Peg-Intron) in previous nonresponders (*abstract 67627*). In this open-label crossover study, all participants received 200 or 400 mg SCH503034 monotherapy for seven days, Peg-Intron for 14 days, and SCH503034 plus Peg-Intron for 14 days, but in different orders (i.e., some patients started on each regimen and then switched to the others). The mean HCV RNA decrease was more than 2 logs in both the 200 mg and 400 mg SCH503034 combination arms; 4 out of 10 subjects in the 400 mg arm achieved undetectable viral load. Combination therapy produced at least an additive decline in HCV RNA, according to Zeuzem. Longer Phase II studies assessing SCH503034/Peg-Intron combination therapy are underway.

VX-950

Henk Reesink from Amsterdam reported on a Phase Ib dose-ranging trial of a second HCV protease inhibitor, Vertex Pharmaceuticals' VX-950 (*abstract 62580*). This study included 36

continued on page 7

AASLD 2005

continued from page 6

subjects with genotype 1 HCV (mostly nonresponders, but also a few treatment-naïve patients). Patients received either placebo or an oral suspension of VX-950 as monotherapy, 450 or 750 mg TID or 1250 mg BID, for 14 days. All patients receiving VX-950 experienced at least a 2-log viral load decrease from baseline; most (26 out of 28) achieved a maximum HCV RNA decrease of at least 3 logs, and four patients had a greater than 5-log decrease. The 750 mg TID dose produced the highest drug trough levels (minimum level before the next dose) and the largest mean HCV RNA decrease – 4.4 logs, or a 25,000-fold reduction; four patients had undetectable viral load at the end of treatment. VX-950 appeared to work as well in prior nonresponders as in naïve patients. ALT declined in all dose groups. There were no severe adverse events, dose reductions, or treatment discontinuations. Here, too, no cardiac toxicity was seen. In a companion resistance study, researchers detected several viral variants with reduced sensitivity to VX-950, with mutations at positions 36, 54, 155, and 156; the A156V/T mutation was associated with high-level resistance (*abstract 72562*).

VX-950 produced “the most rapid and dramatic response” seen to date with a single agent, according to Reesink. Based on viral kinetic analysis, he suggested the drug may reduce HCV to undetectable levels in approximately 12 weeks – substantially shorter than the standard 48-day therapy for genotype 1. Vertex filed an investigational new drug application with the Food and Drug Administration

on November 11. A Phase Ib study of a new tablet formulation of VX-950 plus pegylated interferon is underway in Europe, and a longer combination study is planned for next year.

While all three of these experimental agents look promising, it’s too early to say whether they will ultimately lead to sustained virological response. In the absence of an effective hepatitis C vaccine, many experts believe antiviral drugs – and perhaps entirely oral regimens – are the wave of the future. At a satellite symposium on November 14, HIV specialist Paul Volberding and several viral hepatitis experts discussed what hepatologists can learn from HIV research. Both HCV and HIV mutate rapidly, so combination regimens will likely be necessary to prevent drug resistance. While HCV researchers are at a disadvantage since the virus lifecycle and new drugs cannot be studied easily in laboratory cultures, hepatitis C patients enjoy one big advantage: HCV can potentially be cured in a matter of several months to a couple years, alleviating concern about long-term side effects such as lipodystrophy and increased cardiovascular risk. “This is the start of a very long and very exciting story,” said virologist Jean-Michel Pawlotsky. “We’re really at the beginning of a new era.”

AASLD Part 2 will focus on information reported at AASLD on HCV treatment and disease progression.

¹The abstract numbering convention used is the AASLD 2005 numbering system; it is also the protocol we have followed on our site at www.hcvadvocate.org.

HCSP GUIDES

The Hepatitis C Support Project has published various publications in our “Guide” series. The Guides are available on our Web site www.hcvadvocate.org

A Guide to Understanding and Managing Fatigue – this Guide provides a comprehensive overview of the causes of fatigue as well as simple tips to help manage this often debilitating symptom of HCV)

Management of Hepatitis C by the Primary Care Provider: Monitoring Guidelines. This Guide provides the medical provider with the necessary information to help identify and manage hepatitis C positive individuals. (Available in English and Spanish.)

A Guide to Hepatitis and Disability is one of the most comprehensive documents available on how to prepare and file for social security disability. There is additional information on commercial disability insurance, and health insurance.

A Guide to Hepatitis C Treatment Side Effect Management provides information on treatment related side effects and simple tips on how to manage the sides of HCV therapy.

The Guides are downloadable in copy-ready format. Permission to be reprinted is granted and encouraged with credit to the hepatitis C Support Project.



Extrahepatic Manifestations: *Pruritus (Itching)*

■■■
CD Mazoff, PhD, Managing Editor

Pruritus is one of the most common symptoms reported by people with hepatitis C (15%), but is more commonly found in people with advanced liver disease and cirrhosis. Pruritus is itching that may be localized to a specific part of the body such as hands and feet, but it can also be a generalized itching all over the body. Some people even report that it feels like their internal organs itch. Pruritus can be related to high bilirubin levels, autoimmune disease or dry skin, and can be a side effect of treatment. Use of moisturizing lotions, oatmeal baths or lotions, antihistamines, and cortisone creams and opiate drugs can help.

Experts believe pruritus in people with liver disease is due to the accumulation of toxins (such

as bilirubin) that are not effectively processed or filtered by the damaged liver. One function of the liver is the production of bile, which helps digest fats. Cholestasis, or blockage of the flow of bile through the liver, can result in a build-up of bile acids and bilirubin in the blood. High bilirubin levels cause jaundice (yellowing of the skin and eyes), and pruritus is common in people with jaundice. Certain extrahepatic (outside the liver) conditions associated with HCV, such as autoimmune conditions, may also lead to itching. More commonly, itching due to dry skin can be a side effect of treatment with interferon/ribavirin; this is not the same as pruritus due to advanced liver damage.

Pruritus symptoms can range

from annoying mild itching to severe itching that interferes with daily life. Often the itching is worse at night, and may prevent sleep. Simple scratching typically does not relieve pruritus. As a result, some people risk skin infection and injury by scratching themselves with sharp objects.

Certain drugs can help reduce itching. Some people find that antihistamines, such as diphenhydramine (Benadryl) or hydroxyzine (Atarax), help relieve symptoms and allow better sleep. For pruritus due to cholestasis, cholestyramine (Questran) and colestipol (Colestid) may be effective. These drugs are bile acid binders that attach to bile

continued on page 9

OHIO DONOR REGISTRY:

The state of Ohio has maintained an organ donor registry since 2002 through the Bureau of Motor Vehicles. Adult residents of Ohio who are 18 and over can give legal consent to donate tissue and organs upon death. Individuals under the age of 18 are allowed to donate with permission of their parents(s) or legal guardian(s).

In the United States, many people give gifts during the winter holidays. This year, give the gift of intention. Tell your family and friends that you want to donate your organs upon death. Ask others to do the same. No gift could be more generous.

Resources

The donor registry can be accessed when conducting business with the Bureau of Motor Vehicles. It is available online: Ohio Bureau of Motor Vehicles at <http://ohiobmv.com>

A form is available in the Ohio Donor Registry Brochure available from local Deputy Registrars or by U.S. mail. Send requests to: BMV Record Clearance Unit, P.O. Box 16784, Columbus, OH 43216-6784

Donate Life www.donatelifehio.org

Ohio Bureau of Motor Vehicles at <http://ohiobmv.com>

PRURITUS

continued from page 8

acids in the blood and help eliminate them from the body. They can also interfere with the absorption of other medications, so other drugs should be taken two hours before or after bile acid binders. Some studies have shown that opiate antagonists such as naloxone (Narcan), naltrexone (Revia), and nalmefene (Revex)—which are used to block the effects of opiate drugs—can also reduce severe itching. Rifampin, phenobarbital (Luminal), ondansetron (Zofran), and ursodiol (Actigall) may also be used, and several other medications are under study. A recent study at AASLD 2005 (“Effects of Sertraline on Pruritus in Cholestatic Liver Disease: A Randomized Double Blind Placebo Controlled Crossover Study”) showed that Zoloft (Sertraline), an antidepressant often prescribed to people with hepatitis C, is also effective in reducing the itching caused by cholestasis. “Sertraline significantly improved patient-reported itch scores by 30% compared to the worsening of scores by 24% in patients taking placebo.”

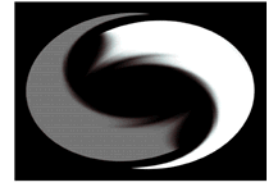
Experimental treatments for pruritus include plasmapheresis (in which blood plasma is removed, filtered, and returned to the body) and ultraviolet (UV) light therapy. Liver transplant is the only cure for severe itching in people with advanced liver disease. For most people with less advanced hepatitis C, though, practical measures and medications are often sufficient to overcome the itch.

TIPS FOR COMBATING DRY SKIN AND ITCHING:

- Avoid soap. Use a non-soap cleanser such as Cetaphil or a similar substitute

- Try rubbing, vibration, or applying pressure instead of scratching. A good thing to “scratch” with is an ice cube
- Drink plenty of water or other clear fluids to keep your entire body hydrated
- Apply moisturizer immediately after a shower or bath – before drying off with a towel
- Creams are more effective moisturizers than lotions
- Apply moisturizer at least twice a day. Effective moisturizers include Vaseline Intensive Care, Aveeno, Eucerin, and Lubriderm
- Use only non-perfumed, mild bath and personal care products
- Avoid extremely hot showers and baths
- Take an oatmeal bath to relieve itching and help with relaxation
- Try baking soda or unscented bath oils for bathing
- Apply cold packs (wrapped in a towel) to the skin
- Whenever possible, wear loose fitting clothes made from natural fabrics that breathe
- Protect your skin from the sun – wear sunscreen
- Look after your lips – use lip balm with sunscreen
- Get plenty of rest
- Keep rooms ventilated and at a temperature of 60 to 70 degrees

Portions of information appearing in this article are excerpts written by Liz Highleyman (“Pruritus: Dealing with that Itch,” HCV Advocate, March 2003) and Lucinda Porter and Alan Franciscus (A Guide to Hepatitis C Treatment Side Effect Management, HCSP Publications, 2005).



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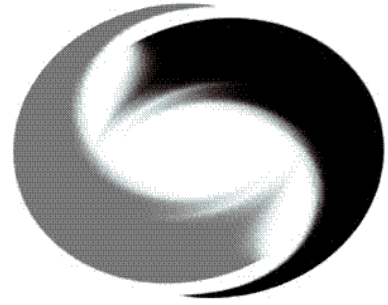
The HCV Advocate offers information about various forms of intervention in order to serve our community. By providing information about any form of medication, treatment, therapy or diet we are neither promoting nor recommending use, but simply offering information in the belief that the best decision is an educated one.

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