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living with HEPATITIS C

a series of stories written
by people living with
hepatitis C

..... Jason Part 3

Treatment for HCV

The progression of chronic HCV can be prevented if caught in time. The *New England Journal of Medicine* published a study in 2001 of forty-four individuals infected with acute Hepatitis C (NEJM.org, 2001). The individuals varied from health care workers exposed to the virus through needle sticks to intravenous drug users. The individuals were treated with interferon alfa 2b for a total of twenty-four weeks. At the end of the twenty-four week period, ninety-eight percent of the forty-three individuals who completed treatment had undetectable levels of HCV RNA in their systems. The results of the study concluded that treating HCV with interferon alfa 2b during the acute stage will halt the progression into chronicity. However, HCV is rarely diagnosed in its acute stage.

In March 2004, after my diagnosis, I made the decision to obtain treatment for HCV. I was at a good place in my life. My fiancée (currently my wife of three years) encouraged my decision, and I had a supportive job. I had a solid understanding of the disease and of the treatment method. I scheduled an appointment in the gastroenterology department of Kaiser Permanente-Hayward, and met with the nurse

who coordinated the HCV treatment program. The treatment process was further explained to me. I met with the doctor and was cleared for treatment.

However, before I started, I had to undergo a psychological evaluation. I met with the psychologist in April 2004. It is standard protocol to be placed on an anti-depressant before starting treatment for HCV. Treatment for HCV can induce depression and other mental neuropsychiatric conditions. If depression is a pre-existing condition, HCV treatment can exacerbate the disorder. As a whole, individuals with chronic HCV have a diminished health-related quality of life (HRQL). After HCV treatment is started, HRQL tends to worsen. (Dan, Martin, 2006) Since I had suffered from depression for many years, it was encouraged that I begin a regimen of Prozac one month before the initiation of treatment.

Pegylated Interferon and Ribavirin: Benefits and Effectiveness in Varying Genotypes

The current FDA approved treatment for HCV is a combination of pegylated interferon and ribavirin. Interferons are proteins produced by the cells of the immune system. These proteins occur naturally in the body to fight viruses and

boost the immune system. Pegylated interferon (Alpha Interferon) is a genetically engineered reproduction of the naturally occurring interferon (Dan, Martin, 2006). Interferon, administered subcutaneously, helps to stop HCV from replicating, and it helps the immune system to kill the virus. The addition of pegylation (polyethylene-glycol side chain) allows the interferon to have a longer bioavailability, which reduces the injections from three times per week to one time per week (Ward, 2005).

Pegylated interferon is given in combination with ribavirin. Ribavirin by itself does not have any effect on HCV. However, when combined with pegylated interferon, it helps to stop HCV from replicating and helps the immune system to kill the virus. Ribavirin is an anti-viral member of the nucleoside antimetabolite drugs that reduces a virus's ability to duplicate inside the body (Medline Plus, 2007).

There are two manufacturers that have developed slightly different pegylated interferon/ribavirin combinations that are FDA approved for the treatment of HCV infection. These manufacturers are Schering and Roche. Schering's Peg-Intron plus Rebetol brand ribavirin has a forty-one percent success rate for genotype one and an eighty-two percent success rate for genotypes two through six. Roche's Pegasys plus Copegus brand ribavirin has a forty-four to fifty-one percent success rate for genotype one and a seventy to eighty-two percent success rate for genotypes two through six (Franciscus, 2006). With both brands, the recommended treatment duration is forty-eight weeks for genotype one and twenty-four weeks for genotypes two through six. Based on my diagnosis of genotype 1a, my doctor recommended a forty-eight-week treatment with pegylated interferon plus ribavirin. The standard dose of pegylated interferon was recommended, injected subcutaneously one time per week. The injection site could vary from my thighs to the sides of my abdomen to reduce the chance of rash and irritation. I was also prescribed 1000mg of ribavirin to be taken orally. I remained at this dosage level for the duration of treatment.

I immediately learned that I was in for the ride of my life. Both pegylated interferon and ribavirin can have serious side effects. I experienced mild flu-like

symptoms, nausea, headaches, depression, fatigue, dry eyes, rash, muscle and joint pain, sudden mood swings, and insomnia. These symptoms fluctuated throughout the treatment. Before I started treatment, I spoke to a friend who had already gone through the process. He gave me a great piece of advice that I took with me through my forty-eight weeks. He told me that "my attitude determined my altitude." I did my best to take that advice to heart, but it was not easy.

If it had not been for my pre-treatment preparation, I might not have successfully completed treatment. Before I began the forty-eight week regimen, I learned everything that I possibly could about the disease and the treatment process. I participated in various HCV support groups and witnessed firsthand others who were going through the process. I shared my feelings of anxiety with my support group, fiancée, family, friends, and employer. All were supportive of my decision to undergo treatment.

My fiancée and I had been planning our wedding before I embarked on my treatment process. We were married August 28, 2004, about four months into treatment. If my wife were not the woman that she is, she could have easily left me during this ordeal. She learned to ignore my irritability and did not allow me to feel sorry for myself for any extended period of time. She also served as a buffer between our children and me. The kids learned that *papí* was sick and that there were times when I wanted to be left alone. I believe that my success in treatment was because of her support and because I did not allow my life to be placed on hold. I continued to work, even when I did not want to get out of bed. I continued to go to HCV support groups, and I continued to maintain a semblance of normalcy in my life.

That is not to say that HCV treatment did not have a tremendous psychological effect on my life. During treatment I became extremely depressed, had no motivation, and was constantly fatigued. Halfway through treatment, I wanted to take a medical leave from work. Neither my doctor nor my boss allowed me to pursue this avenue. Three quarters of the way through treatment, my antidepressant was increased, and I was prescribed Trazadone for insomnia. I

found myself extremely irritated for no apparent reason and prone to frequent mood swings. This is not uncommon for individuals undergoing treatment. There have been no controlled case-studies to date, but neuropsychiatric side-effects of interferon are reported in more than one-third of those treated. The prevalence of depression is common among HCV patients. Fatigue is reported in twenty to eighty percent of those treated for HCV. The preemptive treatment of depression is critical to the successful management of HCV (Thuluvath, 2004). It is essential to remain under close medical observation during this process.

During the initial phase of treatment, I was monitored once per week. I was told to drink plenty of liquids. I was given a hepatic panel that measured various liver functions, including ALT and AST. My viral load was checked frequently, and I was monitored for anemia. One month into the treatment, I had the best possible outcome. My viral load became undetectable. Six months into the treatment, it remained undetectable. At forty-eight weeks, my viral load was still undetectable. This is not the case for everyone undergoing treatment. For up to fifty percent of people, the treatment does not work. These patients are considered non-responders. If after three months, my viral load had not changed, my doctor might have recommended that I discontinue treatment. However, for me that was not the case.

My viral load was tested one month, three months, and six months after treatment. Each time my HCV viral load was undetectable. I had what is known as a sustained virological response or "SVR" (Lee, 2001). SVR is defined as undetectable levels of HCV RNA in the body six months after the completion of treatment. Today I am not cured, but I have achieved an SVR. It has been three years since I completed treatment, and I lead a clean life. I still try to maintain some of the healthy habits that I picked up during treatment, such as eating right and staying hydrated. Of course, I remain clean, sober, and tobacco free.

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Part 4 will focus on prevention of HCV and conclude this series.

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