

## Hepatitis C

The first news available about the Hepatitis C (HCV) Virus, although not known by this name at the time, was in the 80's when a virus that was not A nor B was identified and later during the early 90's they began to discern that the majority of the viruses, although not exclusively, were C. Although this is not habitually related to the other hepatitis viruses, it can provoke similar symptoms. It is primarily transmitted through the blood (for example, unsafe use of drugs or derivatives of the blood), which is also one of the ways that HIV is transmitted. If an individual has only hepatitis C, we are talking about mono-infection, but if some one has two viruses they are being referred to as coinfected.

There is more and more proof that HCV can be transmitted through sexual contact. Even though the mechanism is not completely clear, it has been noted that the risk can be related to sexual practices that imply contact of the blood, mainly fisting (the penetration of the fist in the anus) and rimming (mouth-anus contact) as well as unprotected anal sex. The research about heterosexuals has tended to show that the risk of sexual transmission through vaginal penetration is low. Without a doubt, this topic continues to be controversial and is still being researched. HIV positive people have a higher risk of acquiring HCV through sexual contact due to damaged mucus membranes. People who are coinfected may have higher levels of HCV, which at the same time increase the risk transmission.

Currently it is calculated that 10% of the children born to mothers infected with hepatitis C contract the virus; the number climbs to 25% of children infected whose mothers are HIV positive.

### Symptoms and Illnesses

The effects of HCV infection vary. Less than 5% of the people that contract the virus develop symptoms of acute hepatitis, such as jaundice, diarrhea and nausea at the time of infection, and a significant minority doesn't experience symptoms of any kind. For those who do experience symptoms, the most common are intense fatigue and depression.

It is not known the number of people with hepatitis C who develop the hepatic illness. A small portion of the people infected with HCV is able to eliminate the infection, although this number is smaller amongst people who are coinfected. Approximately 85% develop a continuous or chronic infection. The progression patterns of the illness seem to vary considerably from person to person. Some people never experience symptoms, others may begin to show some symptoms such as extreme fatigue and nausea between ten and fifteen years after being infected and a significant minority develop a serious case of Hepatitis. The variability and the intensity of hepatitis can reflect differences in the viral genotype of the HCV. Other factors, like being a man, consumption of alcohol, being of an older age, obesity and being a carrier of the HIV virus, can also accelerate the progression of the HCV infection.

It is believed that it takes on average between 30 and 40 years for the infection to progress to hepatitis C cirrhosis in people that only have HCV.

It has been shown that hepatitis C progresses more quickly in

people with HIV/AIDS, above all, if the level of their defenses (CD4) is low. However, it is not clear whether the use of High Activity Anti Retroviral Therapy (HAART) represses the replication of HIV, paralyzes or slows down these phenomena. At the same time this therapy can have toxic effects on the liver, which complicates the HIV treatment, and may accelerate the progression of AIDS.

### Diagnostic

A blood test looking for HCV antibodies can indicate if there has been exposure to the virus, although there is a test PCR (analysis of viral levels) to confirm the infection. The tests of liver function can indicate if the hepatitis C has damaged the liver, however this can only definitively be determined, for now, through a liver biopsy, in which a small amount of liver tissue is extracted.

### Treatment

The regular procedure consists in initiating treatments for hepatitis C in mono-infected individuals only if the liver functions show continuous alterations. In coinfected individuals there is more controversy and some specialists prefer to treat without waiting for altered functions. The goal of the treatment is to normalize the hepatic enzymes (an indicator of the hepatic function) reduce the HCV viral levels, improving the inflammation of the liver and preventing the progression of cirrhosis or liver cancer.

The treatment for hepatitis C is not lifelong, it usually lasts between 24 and 48 weeks. Currently the standard treatment consists in a combination of pharmaceuticals: interferon pegylado and ribavirina. The side effects can be severe, although they tend to diminish as the treatment advances, and include fever, joint pain, depression, and low white blood cell count. The ribavirina should not be taken at the same time as the AZT and should not be used during pregnancy.

The best approximation for the treatment of people coinfected with HIV and HCV is not clear. The majority of specialists recommend treatment of the infection that puts the life most immediately at risk, and in the majority of the cases it tends to be HIV. However, treatment with some ARV pharmaceuticals, like protease inhibitors or nevirapina, can cause problems for individuals with liver damage and require careful and close follow up care. There is certain evidence that the reestablishment of the immune system observed under successful ARV therapy can temporarily increase the risk of liver damage in people with hepatitis C.