

Substance Abuse and Hepatitis C Virus

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Abstract

Hepatitis C virus (HCV) is a blood-borne virus that is transmitted through direct blood exposure and kills liver cells and causes liver inflammation. The liver is a vital organ which supplies more than 500 functions in the human body; most importantly, processing everything we eat, breathe, or absorb through our skin (Franciscus & Highleyman, 2012). Consequently, HCV can be highly detrimental to our health and it reduces life expectancy. This article describes how HCV is transmitted, prevention methods, and signs and symptoms of the virus.

Statement of the Problem

Hepatitis C virus (HCV) was discovered in 1989 and has been recognized worldwide as a leading cause of chronic liver disease (Shepard, Finelli, & Alter, 2005). The liver is the second largest organ in the body which processes food and drinks into energy and nutrients and it removes harmful substances from the blood (American Liver Foundation, 2011). The liver also stores vitamins, minerals, and sugars along with other vital functions (Shepard, Finelli, & Alter, 2012). According to the World Health Organization (WHO) (2012), 3-4 million people are infected with HCV and more than 350,000 die from the virus every year. This number includes 15,000 Americans who die annually from HCV complications (Franciscus & Highleyman, 2012). In developing countries such as the United States, HCV is the leading cause of liver transplantation (Shepard et al., 2005).

Transmission of HCV is accountable to blood transfusions, injection drug use, and unsafe therapeutic injections (Shepard et al., 2005). In general, transmission of HCV infection through unsafe therapeutic injections is more likely in developing countries, while injection drug use is a principal source of HVC infections in developed countries (Shepard et al., 2005). Egypt, Pakistan, and China have high rates of chronic HCV infection due to unsafe therapeutic injections and contaminated equipment (WHO, 2012). In order to prevent the spread of HCV, do not share items that may come in contact with blood such as needles or other drug paraphernalia, razors, toothbrushes, nail files, or clippers. Proper sterilization of instruments used for tattooing, body piercing, and acupuncture will also reduce the chances of spreading HCV (Franciscus & Highleyman, 2012)

Researchers have found that transmission of HCV infection through occupational, perinatal, and sexual exposures are less common sources of new HCV infections (Shepard et al., 2005). Although these incidents are less common sources, individuals must still be aware of the probability of HCV transmission. Workers in occupations such as healthcare are at risk through accidental needle stick accidents and situations which involve direct contact with blood. In 4-5% of births, perinatal transmission from the mother to the infant occurs before during or after the birth. Even though HCV is rarely spread through sexual transmission; practicing safe sex can reduce the chances. Even though these incidents are less common, HCV transmission is still plausible; thus, healthcare workers should use preventive measures. Women with HCV should talk to their doctor if they are considering becoming pregnant, and partners should practice safe sex if they are concerned with transmission (Franciscus & Highleyman, 2012). Sharing food or drinks with an infected person, food or water, or causal contact such as hugging and kissing does not spread HCV (WHO, 2012).

HCV causes swelling of the liver and can range from a mild illness, lasting a few weeks, to a serious lifelong illness (WHO, 2012). Initial exposure to HCV is referred to as acute infection and lasts 2-26 weeks and in some people the virus resolves in 2-12 weeks. If the virus does not clear from their body during this window, they become chronically infected; 75% become chronically infected (Franciscus & Highleyman, 2012). Eighty percent of individuals do not exhibit any symptoms following initial infection which interferes with timely diagnoses of acute infections (WHO, 2012). Individuals with acute or chronic HCV may not experience any symptoms for years or even decades (American Liver Foundation, 2011). For those that do exhibit symptoms, they may experience fever, fatigue, decreased appetite, nausea, vomiting, abdominal pain, dark urine, grey colored feces, joint pain and jaundice (yellowing of the skin and the white of the eyes) (WHO, 2012). Franciscus and Highleyman (2012, p. 5) list the following table with more detailed symptoms at the acute stage, chronic stage, and late-stage of HCV:

Acute Hepatitis C	Chronic Hepatitis C	Late –Stage of Hepatitis C with Cirrhosis
<ul style="list-style-type: none"> • Flu-like illness • Fatigue (mild to severe) • Fever • Night sweats • Loss of appetite • Nausea • Vomiting • Jaundice • Indigestion • Headaches • Muscle or joint pain • Abdominal pain • Abdominal bloating 	<ul style="list-style-type: none"> • Fatigue (mild to severe) • Fever • Loss of appetite • Nausea • Indigestion • Headaches • Muscle or joint pain • Abdominal pain depression • Mood swings • “Brain fog” 	<ul style="list-style-type: none"> • Fatigue (mild to severe) • Fever • Loss of appetite • Nausea • Vomiting • Fluid retention • Frequent urination • Jaundice • Indigestion Headaches • Muscle or joint pain • Abdominal pain • Abdominal bloating • Depression • Mood swings • Cognitive dysfunction • Peripheral vision problems

Summary

There is no vaccine or cure for HCV, but available treatments can be used to slow or stop the infection from progressing (Franciscus & Highleyman, 2012). More importantly, prevention is a key source to reduce the number of HCV cases. This can be done through risk-modifying educational programs and messages for people with high-risk drug-using practices. In addition, individuals with HCV would highly benefit from counseling which incorporates ways to reduce the risk of transmitting HCV to others (Shepard et al., 2005). Furthermore, individuals with HCV would benefit from education and counseling on options for care and treatment, immunization with the hepatitis A and B vaccines to prevent coinfection, antiviral therapy and appropriate medical management, and regular monitoring for early diagnosing of liver disease (WHO, 2012).

References

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