Recognizing Hepatitis C as a Systemic Condition Improves Patient Care

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Hepatitis C affects over 3.5 million individuals living in the United States.[1] Deaths associated with hepatitis C virus (HCV) infection have been on the rise over the past few decades, and now exceed the number of annual deaths associated with all other infectious diseases including HIV and tuberculosis.[2] As the burden of HCV grows, it has become increasingly important to gain a more complete understanding of the various effects of chronic HCV infection.

Clinical management of HCV often focuses on monitoring the progression of liver damage by assessing the level of fibrosis, watching for evidence of cirrhosis, and identifying signs of liver cancer (hepatocellular carcinoma). What people might not realize, however, is that hepatitis C affects more than just the liver. While it is true that the virus targets the liver, it actually causes a systemic condition that can affect many different parts of the body. It is important to recognize this aspect of HCV infection, because these conditions can have serious impacts on a patient's health long before there are signs of advanced liver disease.

Providing Education about HCV-Related Conditions Outside the Liver

HCV-related conditions that occur outside the liver are known as extrahepatic manifestations, and up to 74% of all patients with chronic hepatitis C infection will experience at least one of these manifestations during the course of their disease.[3] As a way to increase awareness about the health conditions associated with chronic HCV infection, the National Viral Hepatitis Roundtable (NVHR) started a project called, "Hepatitis C – It's About More than Liver Disease." The program highlights the need to recognize HCV infection as a systemic condition and engages partners to promote a broad approach to the management of disease. One goal of the project is to provide educational resources to the hepatitis C community about HCV conditions outside the liver. NVHR has distributed a series of fact sheets describing various HCV-related manifestations. These fact sheets can be used to share general information about these health conditions, but they also serve as a tool for facilitating discussion between patients and providers about how such conditions may influence care.

The capstone event for this project will be a FREE educational webinar on HCV-related conditions outside the liver, which will be held on Wednesday, May 2nd from 1:00-2:30 pm EST. The webinar will feature presentations from Dr. Zobair Younossi, a clinical researcher who has done extensive work on hepatitis C, and Dr. Kristen Lee, an internal medicine physician who manages a hepatitis C treatment program in a primary care setting. The webinar will also feature Laura Stillman and Randy Madara, two patients who have experienced extrahepatic manifestations firsthand. They will share their personal stories about living with HCV and other health conditions including kidney disease and fatigue. Registration for this event open to all.

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Examples of HCV Effects Beyond the Liver

The spectrum of HCV-related conditions outside the liver is quite broad (see table below). The most commonly reported conditions among HCV patients include fatigue, joint pain, kidney disease, and depression. Other conditions are rare, such as B-cell non-Hodgkin's lymphoma which is an immune system cancer that affects about 2% of people with hepatitis C.[4]

Examples of HCV Effects Beyond the Liver		
Chronic kidney disease	Heart Disease	Depression
Mixed cryoglobulinemia	Lymphoma	Fatigue
Dry eyes & mouth	Skin conditions	Brain Fog
Neuropathy	Diabetes	Thyroid conditions
Joint pain & muscle aches	Autoimmune disorders	Abnormalities of the eyes

Some conditions are well-studied with biological mechanisms that have been clearly explained. For example, mixed cryoglobulinemia is a blood disorder that results from an abnormal buildup of proteins that form as the body fights against the virus. These proteins accumulate in the blood, restricting blood flow and causing damage to various parts of the body. Other conditions are associated with HCV in ways that are not fully understood. For example, recent studies have shown a link between HCV infection and heart disease.

Individuals with HCV are twice as likely to die from heart disease compared to those without HCV.[5] The reasons for this association are unclear, and this remains an active area of research. The fact that we are still learning about new links between HCV and other diseases demonstrates that the effects of the virus are more complex than originally thought, and extrahepatic health conditions may play a significant role in a patient's health outcomes.

Implications for Clinical Care

The identification of HCV-related conditions outside the liver can have a significant impact on HCV care.

- Detection of these conditions may be an early indicator of HCV infection that prompts testing and aids in diagnosis. These conditions may produce symptoms of disease before there are visible signs of damage to the liver. In some cases, they may appear before an individual has been diagnosed with HCV.
- The presence of these conditions may be a clinical indication to start early treatment for HCV. Treating patients for HCV infection can lead to improvements in many symptoms and in some cases can prevent other conditions from developing. Current treatment guidelines recommend consideration of HCV treatment for patients with certain extrahepatic manifestations including cryoglobulinemia and diabetes.[6] Additionally, patients treated for their HCV are shown to have less fatigue, fewer depressive symptoms, and improved kidney function.
- Recognition of the association between HCV and other health conditions provides an opportunity for coordinated, comprehensive care that can have broader impacts on improving a patient's health than treating these conditions individually. Providers from various medical specialties should work together to develop a care plan that addresses all of the HCV-related conditions affecting a patient.

Changing the Dialogue about HCV

The national conversation about hepatitis C is changing. The introduction of direct acting antiviral (DAA) medications has brought the possibility of cure to the millions who are infected. The focus has shifted from finding a cure to determining how patients can obtain the cure. Expanding access to HCV treatment is critical. We can move towards this goal by recognizing that HCV treatment is important not only for preserving liver function, but for a patient's overall health. Understanding the multiple layers of the HCV patient experience will show that HCV is a significant public health issue that requires more attention and resources. The effects of HCV are systemic, but by taking a comprehensive approach to care, the improvements on patient health are profound.

References

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