OVERLAPPING LIVER DISEASES

Autoimmune Hepatic Disorders--When Diagnosis is Uncertain

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With more sophisticated diagnostic techniques, physicians are able to diagnose autoimmune liver diseases in their early stages, a time when symptoms overlap.

Autoimmune Liver Disorders

Among the autoimmune diseases, there are some conditions that defy a definitive diagnosis. In recent years physicians have identified a number of patients with an atypical pattern of autoimmune liver disease, which they’ve now termed overlap syndrome. These patients have features of more than one of the known autoimmune liver disorders.

Symptoms

The most common type of overlap syndrome is one in which patients have symptoms of both autoimmune hepatitis and primary biliary cirrhosis (PBC). Overlap syndromes may also show symptoms of one of these disorders along with primary sclerosing cholangitis. Signs and symptoms of overlap syndrome include elevated liver enzymes, fatigue, jaundice, nausea, and itching. However, the clear immunological profile of these disorders (positive ANA and anti-smooth muscle antibodies in autoimmune hepatitis and positive anti-mitochondrial antibody titer in PBC) isn’t seen.

Nomenclature

Because of their overlapping symptoms without a clear diagnostic picture, this form of liver disease has been previously called

* Autoimmune cholangiopathy
* Anti-mitochondrial antibody negative primary biliary cirrhosis
* Autoimmune liver disease

Disease Progression

Researchers believe that newer emerging technologies will enable them to clearly differentiate the predominant form of disease progression. Diagnostic tests can help predict the form of autoimmune hepatitis that this condition might take or the potential for bile duct destruction in PBC. This would help predict which of the patients will progress to cirrhosis and which will develop liver cancer.

Diagnostic Tests
New technologies such as the Fibroscan, which measures liver fibrosis, are used to help identify potential disease progression. Fibroscan was initially used to identify the potential for cirrhosis in patients with hepatitis C. Today it’s also used to identify cirrhosis in patients with alcohol liver disease and fatty liver disease. Tests for viral hepatitis are used to identify patients who may have viral rather than autoimmune liver disease. Because viral hepatitis can also trigger autoimmune liver disease, tests for viral hepatitis are used to determine if patients are affected by both autoimmune and infectious causes.

Other new tests that help diagnose early progression to liver cancer or cirrhosis include microarray techniques for small RNA molecules that regulate gene activity. Researchers have found that a specific pattern of micro RNA appears to accurately predict both whether liver cancer will metastasize and also the duration of patient survival.

Benefits

Knowing the expected course of a particular disease lends insight into the treatment interventions and lifestyle changes that might best be used to halt disease progression. In the case where liver transplants may be needed, an early definitive diagnosis can help with planning and performing early transplant testing.

Resource:

Christopher O’Brien, Dynamic Evolution of Lab Approaches to Liver Disease: The Basis for using new testing modalities in diagnosing liver disease and predicting response to therapy is explored, Advance for Laboratory Professionals, May, 2008, 69-70.

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