



Clinical Advances and Abnormalities of Hepatic Encephalopathy

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DESCRIPTION

Hepatic encephalopathy is a nervous system disorder caused by severe liver disease. When the liver is not functioning properly, toxins accumulate in the blood. These toxins can enter the brain and impair brain function. A person with hepatic encephalopathy may appear confused. Substances absorbed from the intestine into the bloodstream normally pass through the liver where toxins are removed. Many of these toxins (such as ammonia) are normal breakdown products of protein digestion. In hepatic encephalopathy, liver function is impaired so the toxins are not removed [1]. Also, some toxins can bypass the liver completely through abnormal connections (called collateral vessels) that form between the liver and the portal system, which feeds the liver and general circulation. These vessels form as a result of liver disease and portal hypertension (high blood pressure in the portal vein, the large vein that carries blood from the intestine to the liver). Treatment of portal hypertension may also allow toxins to bypass the liver. Whatever the cause, the result remains the same [2].

Toxins can reach the brain and impair its function. However, high levels of proteolytic products in the blood, such as ammonia, appear to play a role. Hepatic encephalopathy goes from a subtle condition with no apparent signs or symptoms to serious, life-threatening complications. It is a complex disorder that encompasses a variety of diseases or series of diseases with potentially serious consequences. Symptoms are associated with progressive brain dysfunction and include personality changes, intellectual disability, memory loss, and loss of consciousness (coma) [3]. The exact cause of hepatic encephalopathy is unknown. However, it is usually caused by the accumulation of toxins in the bloodstream, which occurs when the liver cannot break down toxins properly. The liver removes toxic chemicals such as ammonia from the body. These toxins remain when proteins are metabolized or broken down for use by various organs in the body. Kidneys convert these toxins into safer substances and eliminate them through urination. When the liver is damaged, it cannot filter all toxins. Toxins can then accumulate in the bloodstream and travel to the brain. Toxic

deposits can also damage other organs and nerves. Symptoms may be mild and difficult for everyone to notice. However, even if there are obvious signs or just subtle changes, it's important to treat. Appropriate treatment can control symptoms or it may get even worse [4].

Hepatic encephalopathy begins when the liver is damaged by long-standing disorders such as chronic hepatitis, Reye's syndrome, and cirrhosis. It doesn't work properly and toxins enter the bloodstream and travel to the brain. They accumulate and cause the mental and physical symptoms of HE. A few things can trigger the cause or it makes the condition worse. It can help to redirect blood flow to treat cirrhosis and other long-term conditions. This procedure allows toxins to bypass the liver and enter the brain [5].

CONCLUSION

Hepatic encephalopathy is associated with shorter survival in patients with cirrhosis. These patients can be divided into several groups with different prognoses, but each group has a lower probability of survival than currently expected after liver transplantation. Treatment for hepatic encephalopathy may need to be continued to prevent recurrence. It is important to examine by a doctor to notice the first signs of hepatic encephalopathy. Untreated hepatic encephalopathy can get worse, increasing the risk of serious complications such as coma.

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