



Role of Hepatotoxicity and how it Affects the Liver

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DESCRIPTION

Hepatotoxicity is injury or liver damage caused by exposure to drugs. This is a rare side effect, but it can be serious. Liver damage can be divided into hepatocytes, cholestasis and mixed liver damage caused by an increase in alanine aminotransferase and alkaline phosphatase above the upper limit of normal. Risk factors include personality, age, gender, alcohol intake, concomitant use of other drugs, previous or underlying liver disease, genetic and environmental factors. Identifying hepatotoxicity is a complex process. Therefore, clinical scales such as the Roussel-Ukraf causal relationship evaluation method (CIOMS/RUCAM) and the clinical diagnostic scale (M & V CDS) have been developed. In addition, there is no specific cure for hepatotoxicity based on stopping the suspicious drug and treating the symptoms. The most commonly associated pharmacological groups are antibiotics, Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), antidepressants and anticonvulsants. Drug-induced liver injury was an adverse event that was difficult to identify, prevent and treat. Thereby, pharmacist intervention can help reduce the harmful effects on the patient's health.

Over 900 drugs are associated with liver damage, which is the most common reason for drugs to withdraw from the market. Hepatotoxicity and drug-induced liver injury are also responsible for a significant number of combined errors and require the need for toxicity prediction models (eg, DTI) and drug screening assays. Chemicals often cause asymptomatic damage to the liver and are only evidenced by abnormal liver enzyme tests.

Toxic hepatitis is an inflammation of the liver in response to the specific substance that we are exposed to. Toxic hepatitis can be caused by alcohol, chemicals, drugs or dietary supplements. In some cases, toxic hepatitis develops within hours or days of exposure to toxins. Also, under normal use, it may take several months for signs and symptoms to appear. Symptoms of toxic hepatitis often disappear when exposure to toxins ceases. However, toxic hepatitis can cause permanent damage to the liver, causing irreversible scarring of liver tissue (cirrhosis) and in some cases, life-threatening liver failure.

Symptoms

Mild toxic hepatitis may not cause symptoms and can only be

detected by blood tests. If signs or symptoms of toxic hepatitis appear, they will be:

- Yellowing of the skin and whites of the eyes (jaundice)
- Itching
- Abdominal pain in the upper right portion of the abdomen
- Fatigue
- Loss of appetite
- Nausea and vomiting
- Rash
- Fever
- Weight loss
- Dark or tea-colored urine

Diagnosis

Tests and procedures used to diagnose toxic hepatitis include:

Physical examination, our doctor will probably do a physical examination and get a medical history. Make sure to put all the medicines we are taking, including over-the-counter medicines and herbs, in their original containers and bring them to our appointment. Talk to the doctor if we are using industrial chemicals or if we are exposed to pesticides, herbicides, or other environmental toxins.

Blood test, our doctor may order a blood test that looks for high levels of certain liver enzymes. These enzyme levels can indicate how well the liver is functioning.

Image inspection, Doctors may recommend imaging tests to obtain images of the liver using ultrasound, Computed Tomography (CT), or Magnetic Resonance Imaging (MRI). Additional imaging tests may include magnetic elastography and transient elastography.

Liver biopsy, Liver biopsy helps confirm the diagnosis of toxic hepatitis and rule out other causes. A liver biopsy uses a needle to take a small sample of tissue from the liver. The sample is inspected under a microscope.

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