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Digitalis toxicity

Digitalis is a medicine that is used to treat certain heart conditions. Digitalis toxicity can be a side effect of digitalis therapy. It may occur when you take too much of the drug at one time. It can also occur when levels of the drug build up for other reasons such as other medical problems you have.

The most common prescription form of this medicine is called digoxin. Digitoxin is another form of digitalis.

Causes

Digitalis toxicity can be caused by high levels of digitalis in the body. A lower tolerance to the drug can also cause digitalis toxicity. People with lower tolerance may have a normal level of digitalis in their blood and still have adverse effects. People may also develop digitalis toxicity if they have other risk factors.

People with heart failure who take digoxin are commonly given medicines called diuretics. These drugs remove excess fluid from the body. Many diuretics can cause potassium loss. A low level of potassium in the body can increase the risk of digitalis toxicity. Digitalis toxicity may also develop in people who take digoxin and have a low level of magnesium in their body.

You are more likely to have this condition if you take digoxin, digitoxin, or other digitalis medicines along with drugs that interact with it. Some of these drugs are quinidine, flecainide, verapamil, and amiodarone.

If your kidneys do not work well, digitalis can build up in your body. Normally, it is removed through the urine. Any problem that affects how your kidneys work (including dehydration) makes digitalis toxicity more likely.

Some plants contain chemicals that can cause symptoms similar to digitalis toxicity if they are eaten. These include foxglove, oleander, and lily of the valley.



Symptoms

These are symptoms of digitalis toxicity:

- Confusion
- Irregular pulse
- Loss of appetite
- Nausea, vomiting, diarrhea
- Fast heartbeat
- Vision changes (unusual), including blind spots, blurred vision, changes in how colors look, or seeing spots

Other symptoms may include:

- Decreased consciousness
- Decreased urine output
- Difficulty breathing when lying down
- Excessive nighttime urination
- Overall swelling

Exams and Tests

Your health care provider will examine you.

Your heart rate may be rapid, or slow and irregular.

An ECG is done to check for irregular heartbeats.

Blood tests that will be done include:

- Blood chemistry
- Kidney function tests, including BUN and creatinine
- Digitoxin and digoxin test to check levels
- Potassium level
- Magnesium level

Treatment

If the person has stopped breathing, call 911 or the local emergency number, then start CPR.

If the person is having trouble breathing, call 911 or the local emergency number.

At the hospital, symptoms will be treated as appropriate.

Digitoxin blood level may be lowered with repeated doses of charcoal, given after gastric lavage.

Methods to cause vomiting are usually not done because vomiting can worsen slow heart rhythms.

In severe cases, medicines called digoxin-specific antibodies may be prescribed. Dialysis may be needed to reduce the level of digitalis in the body.

Outlook (Prognosis)

How well a person does depends on the severity of the toxicity and if it has caused an irregular heart rhythm.

Possible Complications

Complications may include:

- Irregular heart rhythms, which may be deadly
- Heart failure

When to Contact a Medical Professional

Contact your provider if you are taking a digitalis medicine and you have symptoms of toxicity.

Prevention

If you take digitalis medicine, you should have your blood level checked regularly. Blood tests should also be done to check for conditions that make this toxicity more common.

Potassium supplements may be prescribed if you take diuretics and digitalis together. A potassium-sparing diuretic may also be prescribed.

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