Dilantin (Phenytoin) Toxicity

Dilantin (generic name "Phenytoin") is a medication that is used to help control many seizure problems. "Dilantin toxicity" means the amount of dilantin in the blood is high enough to cause problems. Your caregiver will carefully and frequently monitor the amount of dilantin in the blood to make sure that just the right dose is given. The way you feel and the blood test information helps guide the caregiver in making sure that a specific dose is best for each person.

CAUSES

Changes in other prescription medications can directly influence the amount of dilantin in the blood, even though the actual amount of dilantin taken remains unchanged. The following medications may raise the level of dilantin in the blood:

- Amiodarone (Cordarone)
- Chlordiazepoxide (Librium)
- Diazepam (Valium)
- Dicumarol (a blood thinner)
- Disulfiram (Antabuse)
- Estrogens (hormone replacement)
- Tagamet, Pepcid, Axid (used for ulcer disease)
- Isoniazid (an antibiotic)
- Methylphenidate (used for attention deficit disorders)
- Phenothiazines (such as Compazine and Phenergan, used for control of nausea)
- Aspirin and medications containing *salicylates* (similar to aspirin)
- Sulfonamides (antibiotics such as that contained in Bactrim and Septra)
- Tolbutamide (Orinase, used for diabetes management)
- Trazedone (Desyrel, used for depression and sleep problems)
- Primidone (Phenobarbital)
- Fluconazole (Diflucan, used to treat yeast infections)
- Valproic Acid (such as Depakene and Depakote, also used to help with seizures)

Patients taking many medications for a variety of ailments may accidentally take too much dilantin.

A change in *metabolism* (how your body regulates itself) or heavy/binge drinking of alcohol-containing beverages can also raise the level of dilantin.

In rare cases, problems develop when dilantin is given directly into a vein, and it is given too fast. Emergency department and hospital staff giving dilantin this way avoid this problem by the use of IV pumps and careful monitoring.

SYMPTOMS

In **mild cases**, symptoms may not be pronounced. They may develop slowly over weeks or months. They can include:

- Poor balance or weakness when walking.
- Slow movement with all activity.
- Tremor/shaking.
- Irritability.
- Confusion.
- Loss of control of urine.
- Trouble speaking or swallowing
- Double vision.
- Tender and swollen gums.
- Unusual pains in the arms and/or legs.
- Abnormal hair growth.
- Nausea and/or vomiting.
- Problems with functioning of the thyroid gland.

In **severe cases** there may be:

- Disorientation.
- Severe confusion.
- Coma.
- Uncontrolled movement of arms/legs.
- Trouble breathing.
- *Jaundice* (a yellow color to the eyes and skin due to inflammation of the liver).
- Skin rashes.
- Swelling of the face.
- Abdominal pain with possible enlargement of the liver and/or spleen.

In some cases, too much dilantin is taken intentionally in a suicide attempt. This can be very serious and requires emergency care and hospitalization.

DIAGNOSIS

Your caregiver will ask for several blood tests such as:

- A blood count.
- Kidney/liver tests.
- Levels of glucose and normal salts in the blood.
- Dilantin and other medication levels.
- Pregnancy test when appropriate

Other tests may also be needed such as:

- Urinalysis
- An *electrocardiogram* (this test records the electrical activity of the heart).
- Certain x-rays.

If you are experiencing confusion or disorientation, a CAT scan of the head may be needed. Even if the dilantin level is too high, your caregiver will consider other problems that may exist at the same time.

TREATMENT

In mild cases, the dilantin is stopped for a period of time outlined by your caregiver. This may only be a day or two and will be followed by careful follow-up of symptoms and repeat blood tests. A review of all medications (prescription, non-prescription, and herbal) should be done at this time.

In more severe cases, hospitalization is mandatory and may include monitoring in an intensive care unit. If there is severe disorientation or coma, or if problems are found in the liver or heart, help is obtained from specialist doctors.

HOME CARE INSTRUCTIONS

- Be careful when taking your daily medications. It is very important to ask for help if you need it. The same problems can develop again if medication dosages change.
- Follow through with blood tests and office visits recommended by your caregiver.

SEEK MEDICAL CARE IF:

- You are confused about how to take your medications (dilantin and others).
- You plan to adjust dosages of any of your prescription or non-prescription medicines as this may affect the level of dilantin in your blood.
- You develop any of the “mild case” symptoms described under “SYMPTOMS” above.
- You have episodes of falling or have problems keeping your balance.

SEEK IMMEDIATE MEDICAL CARE IF:

- You fall and are injured.
- You develop any of the "severe case" symptoms described under "SYMPTOMS" above.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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