

Thiacetarsamide Sodium (Caparsolate)

Drs. Foster & Smith Educational Staff

Generic Name
Thiacetarsamide Sodium

Brand Name
Caparsolate

Type of Drug
Antiheartworm

Form and Storage
Injectable liquid

Store in the refrigerator protected from light and freezing. Discard opened bottle after 3 months or sooner if becomes discolored or precipitate (crystals) is seen.

Indications for Use
An arsenic-containing compound used to kill immature (4+ month old) and adult heartworms (*Dirofilaria immitis*).

General Information
FDA approved for use in dogs for the removal of adult heartworms. Used in a hospital setting. Although not FDA approved for use in cats, it has been used in cats to treat heartworm disease. Thiacetarsamide is used in a hospital setting.

Heartworm disease can kill, but it is preventable using the daily or monthly heartworm prevention medications. Routine heartworm testing is recommended even for those dogs on heartworm prevention year-round because the earlier heartworm disease is detected, the better the chance of a full recovery. Heartworm disease is graded Class 1-4 with 4 being the most serious.

Blood and urine tests and x-rays may be done before, during, and after treatment to help identify complications to expect or complications that occurred due to treatment. Thiacetarsamide has no effect on the microfilariae (immature heartworms) so a treatment with a microfilaricide (e.g., Heartgard, Interceptor, or Sentinel) to kill the microfilariae is given 3-4 weeks after the adult heartworms are killed. The heartworm preventive is given monthly thereafter.

Usual Dose and Administration
Given directly into a vein twice a day for 2 days. Given in a hospital to allow for the necessary supervision of the patient.

Side Effects
Vomiting is a common reaction. May also see loss of appetite, depression, liver or kidney damage, and reaction to the dying heartworms (coughing, fever, loss of appetite, and lethargy). Thrombocytopenia (lack of platelets, causing bleeding/bruising) is seen also. If the medication gets outside the vein during injection, pain, swelling, and severe sloughing may be seen as the skin and underlying tissues die. Less commonly seen are severe liver damage and severe pulmonary embolism. Death can occur from reaction to the medication and/or from reaction to the dying heartworms.

Contraindications/Warnings
Animals with certain liver, kidney, heart, or lung disease or bleeding disorders should not be treated. Animals with other disease should be treated only with intense monitoring.
Not for use in dogs with Class 4 disease until the heartworms are removed surgically from the vena cava (large vein carrying blood back to the heart) as the risk of death is increased.

Thiacetarsamide is not 100% effective. It only kills all adult heartworms in less than one-half of the dogs treated. Another medication, melarsomine (Immiticide) is more effective.

The dog must be kept quiet (cage rest) for 4-6 weeks after treatment to help decrease the risk of pulmonary emboli.

Repeat the heartworm antigen test four months after treatment.

Treating the heartworm disease may kill the pet, but if not treated, the heartworm disease is likely to kill the pet.

Use with caution in pregnant or nursing animals if unable to wait until a later date to treat.

Do not treat with a heartworm preventive for 3-4 weeks after thiacetarsamide treatment.

Drug or Food Interactions

Glucocorticoids have a protective effect on the adult heartworm, i.e., Caparsolate is less effective if the dog is also receiving glucocorticoids.

No known food interactions.

Overdose/Toxicity

Low margin of safety. Need to have an accurate weight before starting treatment. May see damage to the lungs, kidneys, or liver. Signs may include staggering, lethargy, depression, tremors, drooling, panting, difficulty breathing, vomiting, collapse, coma, and death.

Summary

Thiacetarsamide is an injectable drug for in-hospital use to kill adult heartworms in dogs. Treatment (not prevention) of heartworm infection can result in fatal complications, but death from the untreated heartworm infection is far more likely. Dogs must have 4-6 weeks of cage rest following treatment. Contact your veterinarian if your pet experiences coughing, fever, decreased appetite, increased breathing rate, or a change in attitude after treatment with thiacetarsamide. Another drug, Melarsomine, used to kill adult heartworms is preferred over thiacetarsamide.