

# Dracunculiasis

## DEFINITION

Dracunculiasis is a nodular dermatosis produced by the development of *Dracunculus* spp. adults in the subcutaneous tissue.

## ETIOLOGY AND PATHOGENESIS

*Dracunculus medinensis* (guinea worm) has been reported in humans, dogs, cats, horses, cattle, and other animals in Africa and Asia. *Dracunculus insignis* is a parasite of dogs, raccoons, mink, fox, otter, and skunks of North America. The intermediate hosts are small crustacean copepods which inhabit bodies of fresh water world wide. The copepods ingest first-stage larvae that have been released into water. In the copepods the larvae molt twice over a 12–14 day interval to become the infective third-stage larvae. Animals become infected when drinking water that contains these copepods. Third-stage larvae are released in the process of gastric digestion and migrate to the subcutaneous tissue where adults develop in 8–12 months.

## CLINICAL FEATURES

Animals are presented with single or multiple nodules that either develop draining fistulae or ulcerate. Urticaria, pruritus, pain, inflammation and, occasionally, pyrexia may be noted. Lesions are generally located on the limbs, head, or abdomen.

## DIFFERENTIAL DIAGNOSES

- *Cuterebra* spp. infestation
- Infected wound
- Foreign body
- Cutaneous neoplasia
- Deep mycotic infection
- Panniculitis

## DIAGNOSTIC TESTS

Impression smears of discharge from the fistulae or ulcers may reveal the rhabdiform first-stage larvae, which are between 500 and 760  $\mu\text{m}$  in length. Enlarging and exploring the fistulae may allow demonstration of the adult worms.

## MANAGEMENT

The treatment of choice is surgical excision and removal of the adult worm.



**KEY POINT**

- May be relatively common in some regions but is generally rare.