DIAGNOSIS Dioctophyma renale Infection

The worm in this case was the unique but recognizable bright red *Dioctophyma renale*. The sex of the recovered worm was not determined by the attending veterinarian; however, its size (60 cm) suggests an immature female worm, as adult females can reach 1 meter long while males are typically 30 to 40 cm long.

Fortunately, this was the only worm present in this dog. When both male and female worms are present in the abdominal cavity, they typically mate and produce massive numbers of eggs, causing granulation tissue to form throughout the abdominal mesentery.

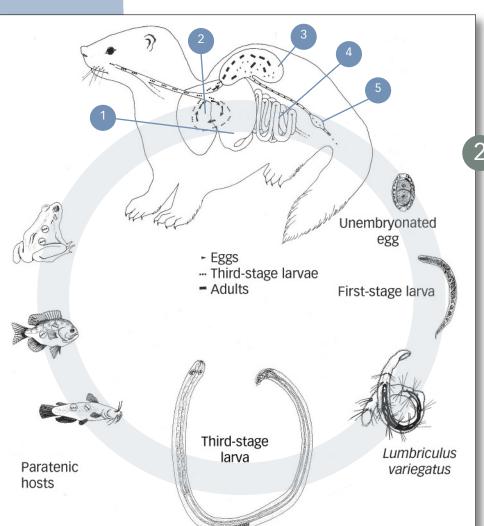
The typical site of maturation of *D renale* worms is the kidney, often the right kidney, of the dog or other host. When the kidney is involved, the worm basically erodes away almost the entire cortex and medulla, leaving only the capsule. The kidney can contain one or more female and male worms. When both sexes are present in the kidney, eggs may pass in the urine of the infected dog.

The number of adult worms found in dogs has ranged from 1 to 34 worms, with as many as 14 worms in the right kidney.

TREATMENT

Treatment typically involves surgical extraction. This case was fairly atypical because of the worm

> exiting the body through a cutaneous lesion, although similar cases have been reported in other animals and even humans.



Life cycle of *Dioctophyma renale*, also known as the giant kidney worm. 1 = stomach, 2 = liver, 3 = kidney, 4 = intestine, 5 = urinary bladder. (From *Nematode Parasites of Vertebrates: Their Development and Transmission*. Anderson R—Wallingford Oxon, UK: C.A.B. International, 1992, p 578; with permission)