Occasionally humans can be infected by species of filariae which normally have other vertebrates as the final host. The most well-known belong to the genus *Dirofilaria*.

Dirofilaria immitis is a worm that parasitises dogs and cats (so-called heart-worm). The adult worms are 10-30 cm long and are sometimes found in hundreds in the dog's right heart chamber and/or pulmonary artery. The microfilariae are found in the dog's blood and are transmitted via the bite of infected *Aedes* mosquitoes. Man is an accidental host in which further development of the parasite is not possible. Consequently there are no microfilariae in humans. The immature worms die in the branches of the human pulmonary artery which can cause coin lesions in the lung. These are asymptomatic round nodules, 2-3 cm in diameter, which are sometimes found by chance on a chest X-ray (coin lesion). As differential diagnosis with tumour is difficult, the diagnosis is often established on the basis of a lung biopsy. No treatment is necessary.

Other *Dirofilaria* (*Nochtiella*) species (*D. repens, D. tenuis*) are sometimes found subcutaneously in a nodule in humans. These nodules can migrate which is clearly different from nodules caused by cysticercosis. *Dirofilaria repens* causes swelling in the subcutaneous tissues in general around the eye, although various other locations are possible including spermatic cord and omentum. Treatment consists of surgical removal. It should be noted that these filariae produce no microfilariae in humans. The diagnosis is usually curative (resection biopsy).