

Herzwurmerkrankung

Die **Herzwurmerkrankung** (*Dirofilariose*) ist eine parasitäre Krankheit der Hunde, seltener auch der Katzen und weiterer Hundertier. Sie ist nur schwer zu behandeln und verläuft oft tödlich. Sie kommt vor allem in Nord- und Mittelamerika vor, ist aber auch im Mittelmeerraum (vor allem in Italien, Griechenland, Südfrankreich), Portugal, den Kanarischen Inseln) und den tropischen und subtropischen Gebieten verbreitet. Einzelfälle wurden auch in Ungarn und im Tessin beobachtet, weshalb insbesondere Hunde bei Urlaubsreisen in diese Regionen ansteckungsgefährdet sind.

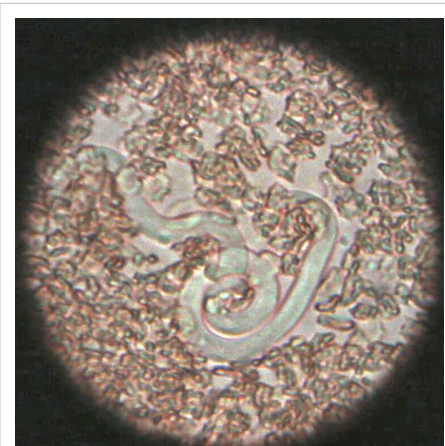


Mit Herzwurm infiziertes Hundeherz

Erreger

Der Erreger der Dirofilariose ist die Filarienart *Dirofilaria immitis*. Diese Parasiten sind obligat zweiwirtig. Ein Teil des Entwicklungszyklus, vom Larvenstadium 1 bis 3 (*Mikrofilarien*), verläuft in Stechmücken. Bislang wurden über 70 Stechmückenarten als Träger nachgewiesen, allerdings nicht die in Mitteleuropa heimischen Arten. Die Stechmücke überträgt beim Saugakt diese Mikrofilarien auf den Wirt.

In der Unterhaut erfolgt innerhalb von 2 Monaten die Entwicklung zum Larvenstadium 4. Diese Larven 4 wandern über die Muskulatur in die Blutgefäße ein und entwickeln sich nach weiteren zwei bis drei Monaten zu den erwachsenen Herzwürmern (*Makrofilarien*). Die erwachsenen Herzwürmer sind etwa 1 mm dick und 20-30 cm lang und siedeln sich vor allem im Truncus pulmonalis, bei stärkerem Befall auch in der rechten Herzhälfte und den herznahen Abschnitten der Hohlvenen an. Etwa sechs Monate nach der Infektion bilden die Weibchen wiederum Mikrofilarien (Larve 1), die mit dem Blut in kleinere Blutgefäße gelangen und gegebenenfalls von Mücken beim Saugakt wieder aufgenommen werden. Mikrofilarien können bis zu drei Jahre in der Blutbahn zirkulieren.^[1]



Larve der *Dirofilaria immitis*, 40x vergrößert

Die Erkrankung kommt in den endemischen Gebieten vor allem beim Hund vor. Katzen sind deutlich seltener betroffen, die Prävalenz ist nur etwa 10 % der bei Hunden. Auch Füchse, Robben und selten auch Menschen können erkranken.^[1]

Die Infektion mit der verwandten Art *Dirofilaria repens* bleibt auf die Haut beschränkt und ruft nur selten klinische Symptome hervor.

Klinisches Bild

Die befallenen Tiere zeigen mit der Entwicklung der reifen Würmer, also erst etwa 6 Monate nach der Infektion, in Abhängigkeit vom Befallsgrad eine reduzierte Leistungsfähigkeit und ermüden schnell. Es entwickelt sich eine Rechtsherzinsuffizienz mit Überlastung und Erweiterung der rechten Herzseite (Cor pulmonale) mit Atemnot, Husten und der Bildung von Ödemen. Infolge der Herzinsuffizienz kann auch eine Leber- und Nierenversagen entstehen. Bei Katzen kann es zu einer Thromboembolie der Lungenarterien mit Atemnot und tödlichem Ausgang

kommen.^[2]

Diagnose

Die Diagnose kann durch eine mikroskopische Untersuchung von Kapillarblut oder einen *Knott-Test* auf Mikrofilarien erfolgen, die Nachweissicherheit beträgt aber nur etwa 75 %. Der Antigennachweis im Serum ist ebenfalls erst ein halbes Jahr nach der Infektion, mit der Freisetzung von Mikrofilarien sicher. Für den Nachweis existiert ein immunochromatographischer Schnelltest (*Speed DIRO*).^[1]

Therapie

Die Therapie ist kompliziert, da Herzwürmer zwar für Wirkstoffe wie Diethylcarbamazin oder Melarsamin prinzipiell empfänglich sind, aber bei stärkerem Befall eine Thrombose oder eine schwere anaphylaktischen Reaktion infolge des massiven Absterbens von Mikrofilarien entstehen kann. Die Behandlung wird deshalb meist mit Acetylsalicylsäure und bei schwerem Befall mit Antihistaminika kombiniert. Die Behandlung mit Levamisol kann bei Hunden ebenfalls schwere Nebenwirkungen (Blutungen, hämolytische Anämie) hervorrufen. Die operative Entfernung der Herzwürmer ist ebenfalls risikobehaftet und nur in spezialisierten Kliniken möglich.^[1]

Wegen der Probleme bei der Therapie ist die Vorbeugung um so wichtiger. Eine Behandlung mit Ivermectin, Moxidectin, Selamectin, Milbemycinoxim oder Lufenuron vor Beginn der Urlaubsreise kann eine Infektion verhindern.^[1]

Einzelnachweise

[1] C. F. Schrey: *Die Herzwurmerkrankung beim Hund*. In: *veterinärspiegel* 3 (1992), S. 7–9.

[2] J.W. McCall et al.: *Heartworm infection in cats: a life-threatening disease*. In: *Vet Med* 1994, S. 639-647.

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