Cardiovascular Disorders

HYPERTROPHIC CARDIOMYOPATHY (HCM) IN CATS

Hypertrophic cardiomyopathy (HCM) is the most commonly diagnosed heart disease in cats and accounts for more than 50% of feline cardiomyopathies.[1,2] Certain breeds, such as Maine Coon, Ragdoll, Persians and Bengal cats are predisposed to HCM but other cats are also commonly affected.

The American College of Veterinary Internal Medicine (ACVIM) consensus guidelines identify four stages of heart disease in cats with cardiomyopathy.[3]

- Stage A: Cats at risk of developing cardiomyopathy
- Stage B: Subclinical cats with normal or mild left atrial enlargement (Stage B1; low risk) or cats with moderate/severe left atrial enlargement (Stage B2; high risk)
- Stage C: Cats with current or prior history of congestive heart failure (CHF) or aortic thromboembolism (ATE)
- Stage D: Cats with CHF that no longer respond to medical treatment

Cats with early HCM often escape detection because they may not have abnormal heart sounds or show clinical signs, such as respiratory distress from CHF or limb paralysis from an ATE.[4]

The echocardiogram is the gold standard for diagnosing HCM in cats. However cardiac biomarkers, such as N-terminal of pro-brain natriuretic peptide (NT-proBNP), can help identify high-risk HCM (B2) cats, which may be valuable before medical interventions such as general anesthesia or fluid therapy.[2]

For cats with heart failure or ATE, nutritional modifications can be an important part of patient care.[1,3]

DID YOU KNOW?

Many cats with HCM have no heart murmur, gallop sound or arrhythmia, and cats with HCM but no murmur have increased risk of cardiac mortality.[2,8]

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Key Messages

Presentation and outcome for hypertrophic feline cardiomyopathy are extremely variable. However, about 30% progress to heart failure.[1] For cats with HCM that are in heart failure, dietary recommendations focus on:

- maintaining caloric and protein intake[5,6]
  - Creative feeding strategies can help improve a cat's appetite, such as offering a variety of (appropriate) food options, varied feeding locations, or warming the food to body temperature.
  - Record body weight, body condition score, and muscle condition score at every veterinary visit.
- avoiding high sodium intake
  - High-sodium foods and treats, often given with medication, can unintentionally add excessive sodium to a cat's diet.[3]
- supplementing with taurine for cats with global left ventricular systolic dysfunction unless plasma taurine concentrations are in the normal range[3,7]
- supplementing with long chain omega-3 fatty acids[5]
  - Fish oil (with DHA and EPA) may help reduce inflammatory mediators and oxidative stress, reduce platelet aggregation, and help improve appetite.
- monitoring for potassium deficiencies[3]
  - Serum potassium concentration may be affected by medical management or underlying conditions and may need to be supplemented.

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