Heart Murmurs in Cats

**CAT WITH HEART MURMUR**

- **INVESTIGATION**
  - Check PCV

- **DIAGNOSTICS**
  - Cat is anemic

- **TREATMENT**
  - Correct anemia
  - Investigate underlying causes
  - Recheck murmur when PCV normalizes

- **INVESTIGATION**
  - Systolic grade IV/VI or louder; all murmurs

- **DIAGNOSTICS**
  - Congenital heart disease likely
    - Most common defect in the cat is ventricular septal defect
    - Also common are mitral and tricuspid valve dysplasia
    - Echocardiogram is advised

- **RESULTS**
  - A physiologic (nonpathological) cause is likely and is a common finding in cats; can be confirmed by echocardiogram

- **DIAGNOSTICS**
  - NT-proBNP is <100 pmol/L

- **RESULTS**
  - NT-proBNP is >100 pmol/L

- **DIAGNOSTICS**
  - Heart disease less likely —Further testing may not be necessary

- **DIAGNOSTICS**
  - Heart disease more likely —Confirm severity & cause with echocardiogram

- **INVESTIGATION**
  - Continuous murmur

- **INVESTIGATION**
  - Systolic grade III/VI or softer

- **INVESTIGATION**
  - Systolic grade IV/VI or louder

- **INVESTIGATION**
  - <7 years of age

- **INVESTIGATION**
  - Adult cat

- **INVESTIGATION**
  - Young cat (ie, <1 year of age), or never previously auscultated
TREATMENT

- Treat hyperthyroid state and reassess murmur after establishment of euthyroidism
- Secondary cardiac disease may be present; echocardiogram can evaluate degree of cardiac remodeling from thyroid disease

DIAGNOSTICS

Organic heart disease likely cause of this murmur grade
- Hypertrophic cardiomyopathy is the most common acquired heart disease of the cat
  — Thoracic radiographs are advised to evaluate heart size and presence or absence of congestive heart failure
  — Echocardiogram is helpful for definitive diagnosis, to assess left atrial size, and to evaluate risk for arterial thromboembolism

INVESTIGATION

>7 years of age
Evaluate thyroid hormone status
Normal T4

Any age with fever, infection, new murmur
Although rare, consider endocarditis as a differential; echocardiogram required to confirm
Elevated T4

RESULTS

References


NT-proBNP = N-terminal pro-B type natriuretic peptide, PCV = packed cell volume, T4 = thyroid hormone assay