

# Atenolol in cats with subclinical hypertrophic cardiomyopathy: a double-blind, placebo-controlled, randomized clinical trial of effect on quality of life, activity, and cardiac biomarkers - PubMed

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## Atenolol in cats with subclinical hypertrophic cardiomyopathy: a double-blind, placebo-controlled, randomized clinical trial of effect on quality of life, activity, and cardiac biomarkers

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### Abstract

**Objective:** To compare quality of life (QOL) and activity measures between healthy control cats and cats with subclinical hypertrophic cardiomyopathy (HCM), and to evaluate the effect of oral atenolol therapy on QOL, activity, and circulating biomarkers in cats with subclinical HCM.

**Animals:** Thirty-two client-owned cats with subclinical HCM and 27 healthy control cats.

**Methods:** Owner responses to a QOL questionnaire, circulating cardiac biomarker concentrations, and accelerometer-based activity measures were compared prospectively in cats with and without HCM, and in cats with HCM before and after treatment with oral atenolol (6.25 mg/cat q 12 h) for 6 months.

**Results:** Owner-assessed activity of daily living score was lower in cats with HCM than in cats in controls ( $p=0.0420$ ). No differences were identified between control cats and cats with HCM for any activity variable. Compared with placebo, treatment with atenolol was associated with a lower baseline-adjusted mean  $\pm$  SD heart rate ( $157 \pm 30$  vs.  $195 \pm 20$  bpm;  $p=0.0001$ ) and rate-pressure product ( $22,446 \pm 6,237$  vs.  $26,615 \pm 4,623$  mmHg/min;  $p=0.0146$ ). A treatment effect of atenolol on QOL or activity was not demonstrated.

**Conclusions:** This study failed to identify an effect of subclinical HCM on owner-assessed QOL or activity or a treatment effect of atenolol on these variables at the dosage evaluated. These findings do not support a treatment benefit of atenolol for the goal of symptom reduction in cats with subclinical HCM.

**Keywords:** Accelerometry; Beta-blocker; Feline.

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## Conflict of interest statement

Conflicts of Interest Statement The authors do not have any conflicts of interest to disclose.

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