

# Comparison of Focused Cardiac Ultrasound Findings in Lateral Versus Sternal Recumbency in Cats

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P. Burnotte<sup>1</sup>; A.C. Merveille<sup>2</sup>; K. Gommeren<sup>2</sup>

<sup>1</sup>Faculty of Veterinary Medicine, University of Liège, Liège, Belgium; <sup>2</sup>University of Liège, Sart-Tilman, Liège, Belgium

## Introduction

Point of care ultrasound (POCUS) is typically performed in sternal recumbency in dyspnoeic cats, to allow the patient to breath more comfortably. Reference values for cardiac parameters have only been assessed in lateral recumbency in cats. It is unknown whether these reference values can also be applied for cats in sternal recumbency, on which a focused cardiac ultrasound is performed. This study compared the maximal left atrial dimension (LAD) and the ratio of left atrial to aortic diameter (LA:Ao) in cats in sternal and lateral recumbency, hypothesizing findings would be similar.

## Methods

A prospective observational study was performed at the University of Liège on hospitalized cats. Cats were excluded if their condition prevented them being comfortably placed in lateral recumbency. Focused cardiac ultrasound was performed in right lateral and sternal position in all cats by a single emergency and critical care resident. Measurements were performed a posteriori on the recorded cineloops by the same resident, blinded to the cat's position. Standard right parasternal long and short axis views were used to measure LAD and LA:Ao, respectively. Normality was assessed by the Shapiro-Wilks's test. The Bland Altman method performed comparison of measurements in sternal and lateral recumbency. A p-value <0.05 was considered significant.

## Results

One hundred and two cats were enrolled between December 2019 and January 2021. LA:Ao and LAD measurements in lateral (LA:Ao median 1.37, range 1.02–3.22 and LAD median 13.25, range 7.90–32.90) and sternal (LA:Ao median 1.38, range 1.06–3.22, and LAD median 13.00, range 8.00–32.90) recumbency were not significantly different (biais: -0.003, IC: [-0.014; 0.007], p=0.545; biais: -0.101, IC: [-0.231; 0.029], p=0.125, respectively).

## Conclusion

LAD and LA:Ao measurements could be performed in sternal recumbency in all cats. Values measured in sternal or lateral position were not significantly different. LAD and LA:Ao measurements can be reliably assessed in sternal recumbency in dyspnoeic cats.

## Disclosures

The portable ultrasound machine used in this study was loaned by the company Scil Vet France.

## SPEAKER INFORMATION

(click the speaker's name to view other papers and abstracts submitted by this speaker)

### **Priscilla Burnotte**

Faculty of Veterinary Medicine  
University of Liège  
Liège, Belgium

URL: <https://www.vin.com/doc/?id=10271854>

