

# Favorable Effect of Aficamten on Left Atrial Mechanics in Obstructive Hypertrophic Cardiomyopathy: Insights from the SEQUOIA-HCM Trial



Yasuhiro Hamatani, Alireza Manafi, Brian L. Claggett, Caroline J. Coats, Martin S. Maron, Ahmad Masri, Iacopo Olivotto, Daniel L. Jacoby, Stephen B. Heitner, Stuart Kupfer, Fady I. Malik, Narayana Prasad, Scott D. Solomon, and Sheila M. Hegde



HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL

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# Background

- Aficamten, a next-in-class cardiac myosin inhibitor, relieves left ventricular outflow tract (LVOT) obstruction and improves peak oxygen uptake ( $pVO_2$ ) in patients with obstructive hypertrophic cardiomyopathy (HCM).<sup>1</sup>
- While aficamten improved left atrial (LA) structure (LA volume index),<sup>2</sup> its effects on LA mechanics have not been characterized.

# Methods

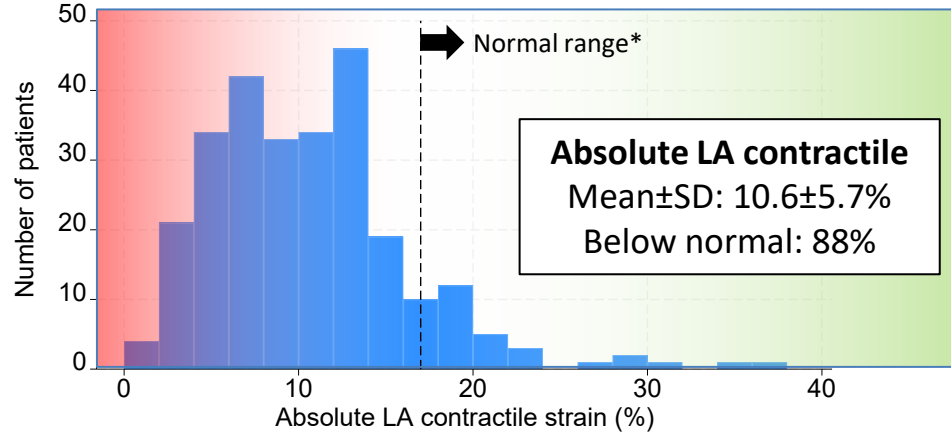
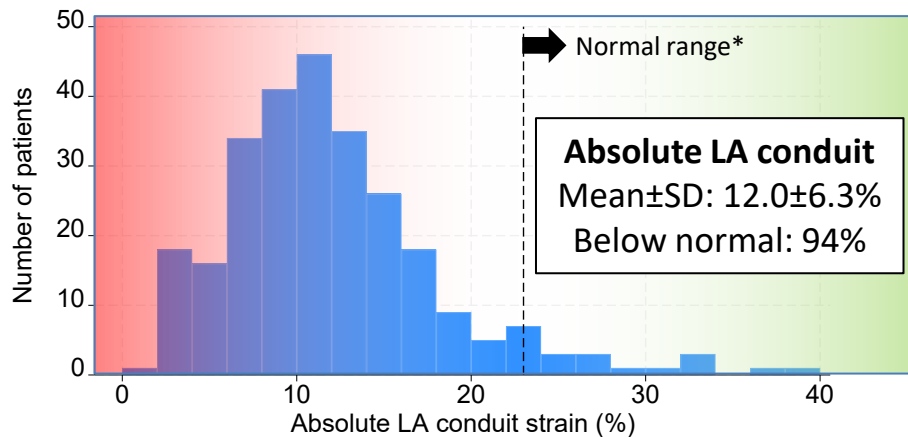
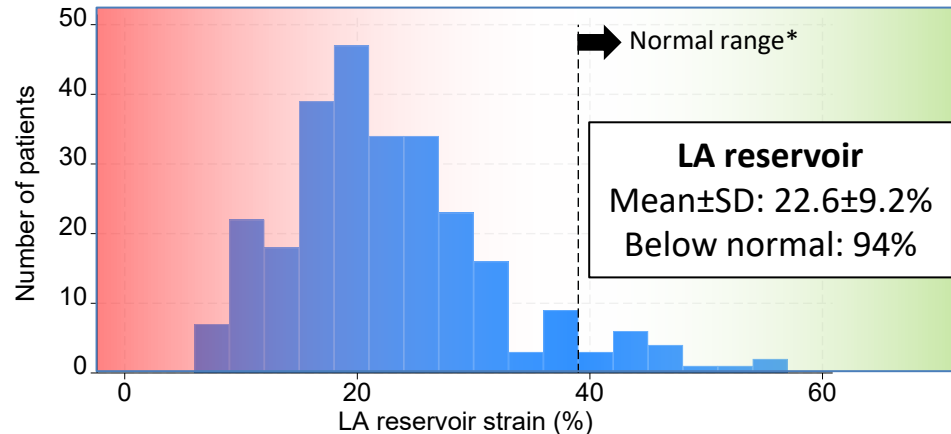
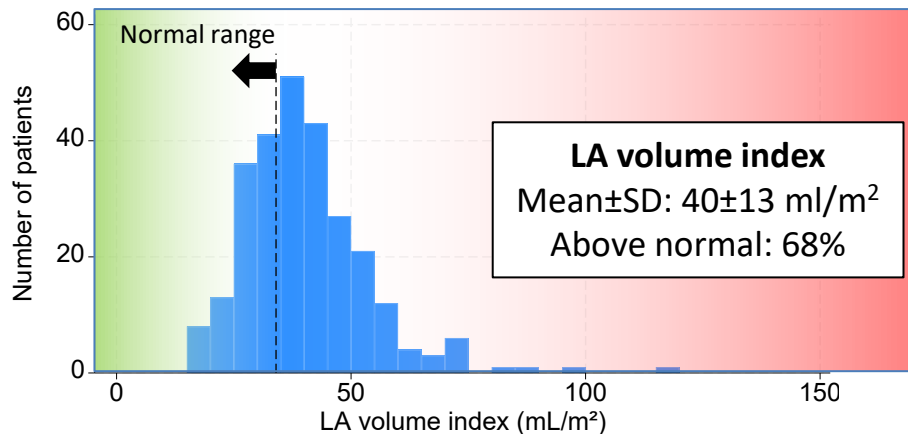
- In the randomized, double-blind, placebo-controlled trial of aficamten in obstructive HCM (SEQUOIA-HCM), we assessed LA reservoir, conduit, and contractile strain at baseline and week 24.



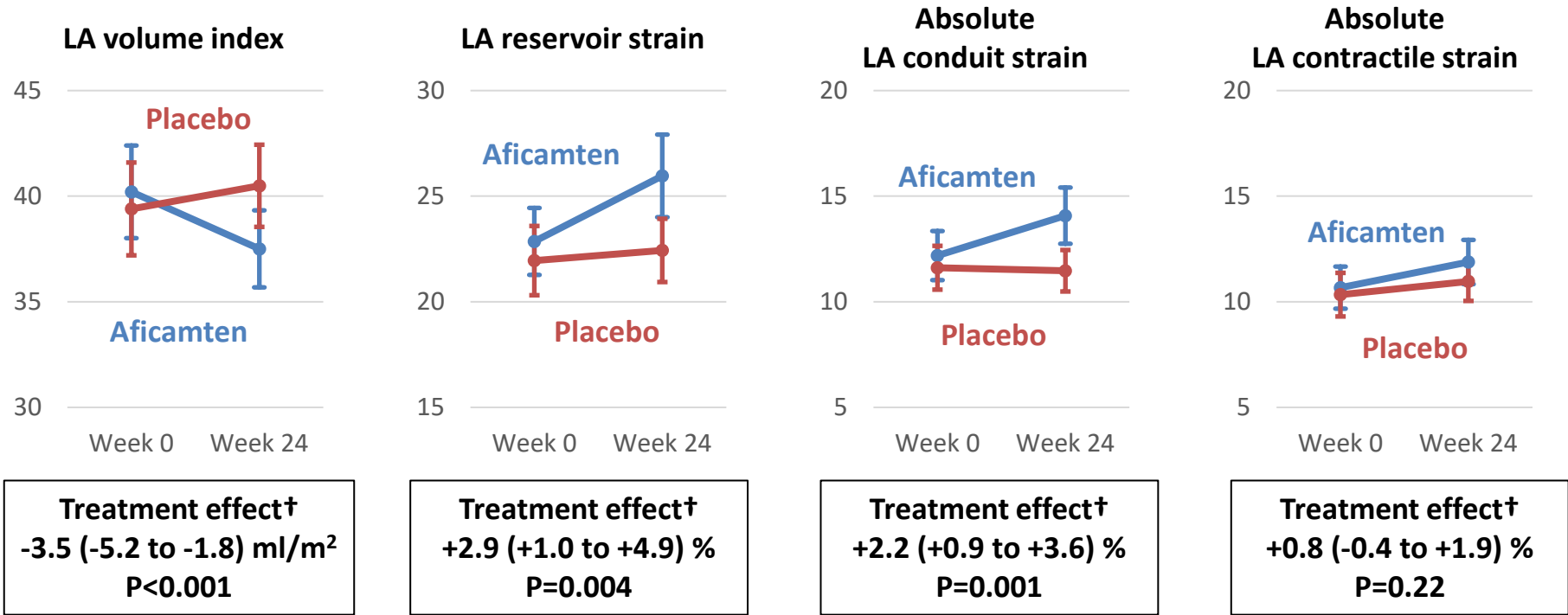
**N=269**

Age:  $59 \pm 13$  years, women: 41%, NYHA class II: 70%,  
LVOT gradient at rest:  $55 \pm 30$  mmHg, LVEF:  $75 \pm 6\%$

# Results — Distribution of LA parameters at baseline

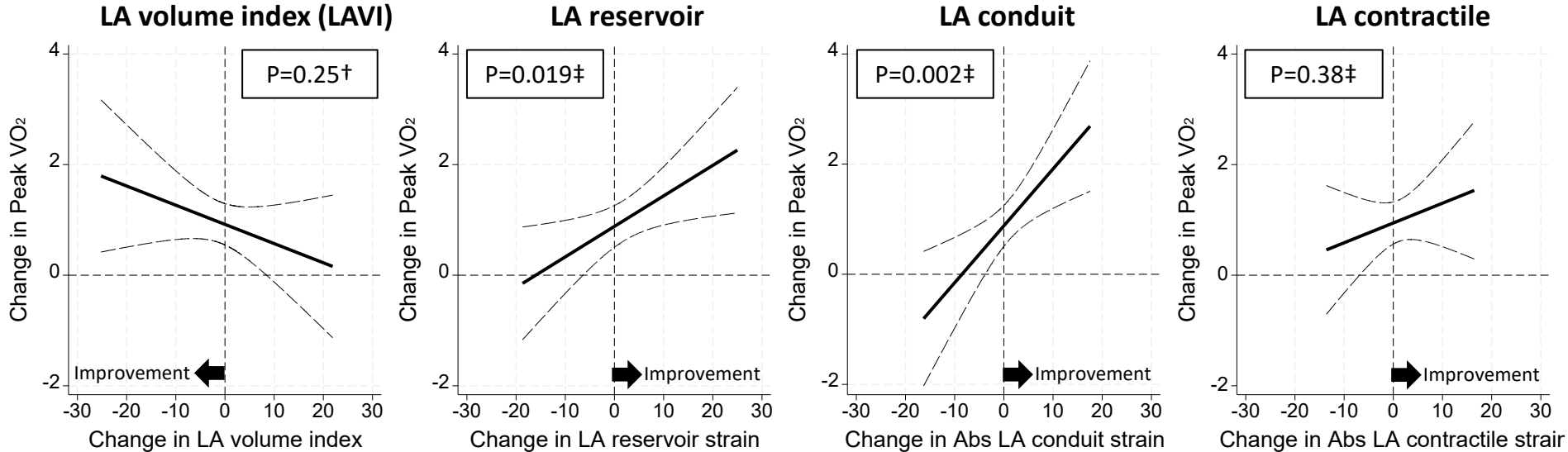


# Results — Change in LA parameters from baseline to week 24



Aficamten, compared with placebo, significantly improved LA reservoir and conduit strain.

# Results — Relationship between change in LA parameters and change in peak VO<sub>2</sub>



Improvement in LAVI was not associated with improvement in pVO<sub>2</sub>.

However, improvement in both LA reservoir and conduit strain, accounting for LAVI, was associated with improvement in pVO<sub>2</sub>.

†adjusted for baseline parameters and treatment assignment

‡additionally adjusted for baseline and change in LAVI

# Conclusions

- In patients with oHCM enrolled in SEQUOIA-HCM, measures of LA strain were abnormal at baseline.
- Aficamten treatment improved LA mechanics in oHCM.
- Improvement in LA reservoir (dynamic filling) and conduit (passive emptying) function is associated with improved exercise capacity.

