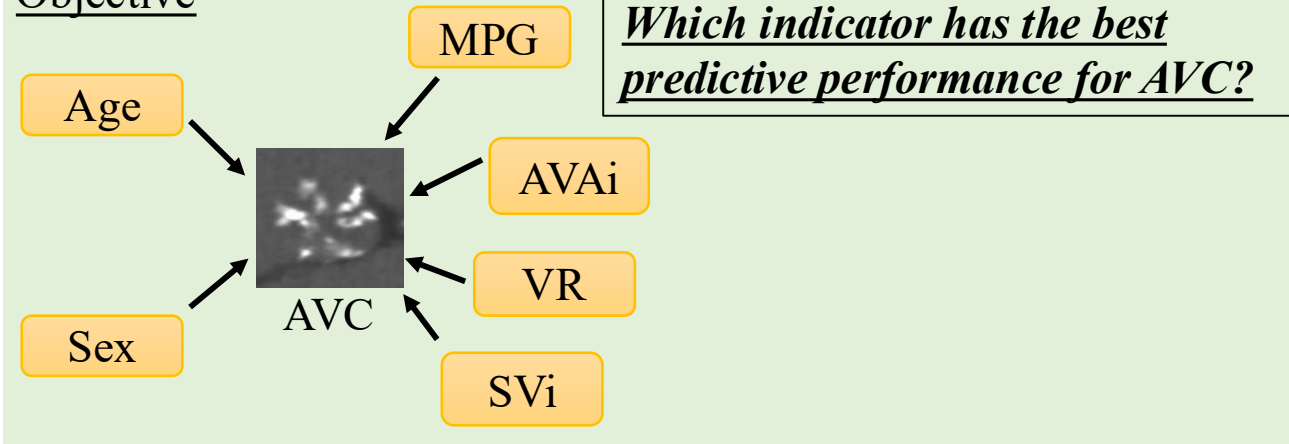


The velocity ratio as a predictor of valve calcium degeneration in aortic stenosis with low-flow status

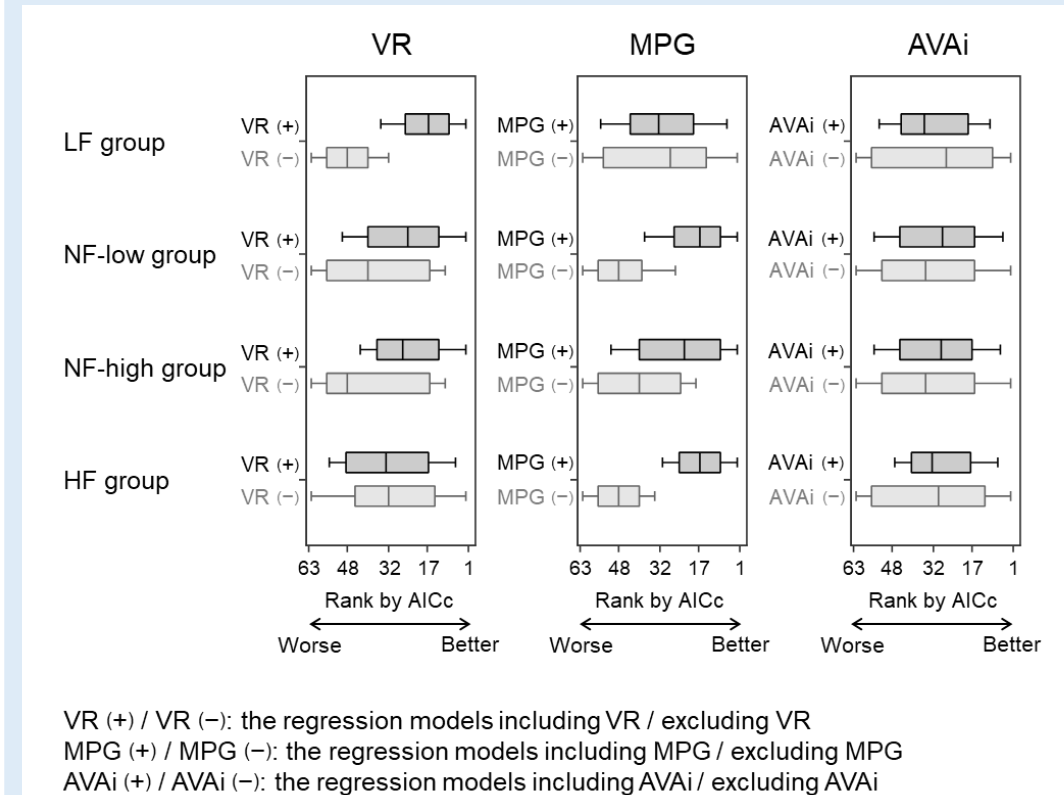
Objective



Methods

- Study design: Single-center, retrospective, cross-sectional study
- Study population: At least mild aortic stenosis ($V_{\max} \geq 2.5$ m/s or $AVA \leq 2.0$ cm²) who underwent electrocardiography-gated multidetector computed tomography and comprehensive Doppler echocardiography between July 2018 and June 2023
- Grouping: LF: N = 59, NF-LF: N = 161, NF-HF: N = 136, HF: N = 49
- Analysis
 - We created multiple regression models for the AVC score with all possible combinations of the independent variables of age, sex, VR, MPG, AVAi, and SVi ($2^6 - 1 = 63$ models).
 - In all models, we calculated the AICc; the model with the lowest AICc was considered the most plausible among the 63 models.
 - To assess the relative importance of each echocardiographic indicator, the ranks of the 32 models including a given indicator and those of the 31 models excluding the indicator were compared using the Mann–Whitney *U* test.

Results



Variables in the top three models in the LF group

- #1: **VR**, age, female sex
- #2: **VR**, female sex
- #3: **VR**, age, female sex, and SVi