

Impact of concomitant mitral regurgitation in severe aortic stenosis in Japan – from the CURRENT AS registry

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Background: Clinical significance of concomitant mitral regurgitation (MR) in patients with severe aortic stenosis (AS) has not been well-studied.

Purpose: The purpose of this study is to investigate the prognostic impact of concomitant MR in patients with severe AS.

Method: We used the data of 3815 patients from the CURRENT AS registry, a retrospective multicenter registry of severe AS in Japan. We compared the clinical outcomes between patients with moderate/severe MR and with none/mild MR according to the initial treatment strategies (initial aortic valve replacement [AVR] or conservative strategy). The primary outcome measure was a composite of aortic valve-related death and heart failure hospitalisation.

Results: Among the study population, moderate/severe MR were observed in 227/1197 (19%) patients with initial AVR strategy and in 536/2618 (20%) patients with conservative strategy. Among survivors with the ini-

tial AVR strategy, moderate/severe MR improved in 61/62 (98%) patients with concomitant mitral procedures. The crude cumulative 5-year incidence of the primary outcome measure was significantly higher in patients with moderate/severe MR than in those with none/mild MR regardless of the treatment strategies (25.2% vs. 14.4%, $P < 0.001$ in the initial AVR strategy; 63.3% vs 40.7%, $P < 0.001$ in the conservative strategy). Multivariate analysis revealed moderate/severe MR at index echocardiography was independently associated with higher risk for the primary outcome measure in conservative strategy (adjusted HR 1.20, 95% CI 1.03–1.40, $P = 0.023$), but not associated in the initial AVR strategy (adjusted HR 1.20, 95% CI 0.82–1.80, $P = 0.339$).

Conclusion: Moderate/severe MR was independently associated with poorer outcome in patients with severe AS who were managed conservatively, but not in those with initial AVR strategy.