## A case of acquired discrete subaortic stenosis in elderly woman

Department of Internal Medicine, division of cardiology, Yonsei University, Wonju College of Medicine

*Sang Wook Park, Jung-Woo Son, Jun-won Lee, Young jin Youn, Min-Soo Ahn, Sung-Gyun Ahn, Jang-Young Kim, Byung -su Yoo, Seung-Hwan Lee, Junghan Yoon

A 62-year-old woman visited our outpatient clinic due to dyspnea on exertion (NYHA functional class II~III) which developed 1 month ago. On auscultation, a grade III/IV pansystolic murmur was audible at right upper sternal border. Chest X-ray and electrocardiogram showed left ventricular hypertrophy. Transthoracic echocardiography (TTE) revealed mobile hyper-echoic material at left ventricular outflow tract (LVOT) near the aortic valve (AV) (Fig1-A), and flow acceleration was observed at the lesion of LVOT, not at the AV (Fig1-B). Peak velocity of continuous wave Doppler was 5.2m/sec at the lesion of LVOT with fixed obstructive pattern, not dynamic obstructive pattern (Fig1-C). In transesophageal echocardiography, a sub-aortic circumferential membrane was observed, and flow-acceleration was observed at the same site. The area of sub-aortic valve was 0.84 cm^2 by 2D-planimetry (Fig1-D). The patient was operated excision of subaortic membrane and myomectomy. Discrete sub-aortic stenosis (DSS) is a manifestation of a geometric anatomic alteration in the LVOT. DSS is an acquired cardiac defect of postnatal development, as it does not appear during embryologic development of the heart and occurs rarely in the neonatal period. DSS can induce significant hemodynamic influence. However, recurrence is not uncommon (about 25%) despite adequate resection of stenosis area. Older age at the time of diagnosis and female are associated with higher recurrence rate. Regular follow-up echocardiography is necessary to monitor for recurrence.
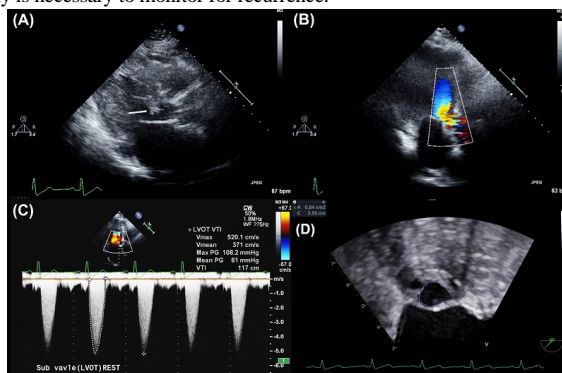
Prognostic value of TIMI Flow in ST-Segmemt Elevation Myocardial Infarction Patients with PCI

[1]Department of Internal Medicine, Chungnam National University College of Medicine, Daejeon, [2]Department of Internal Medicine, The Heart Center of Chonnam National University Hospital, Gwangju, [3]Department of Internal Medicine, Kyungpook National University College of Medicine, Daegu, [4]Department of Internal Medicine, Keimyung University College of Medicine, Daegu, [5]Department of Internal Medicine, Yeungnam University College of Medicine, Daegu, Rep. of Korea

*Ji Hye Han, MD[1], Kye Taek Ahn, MD[1], Seon Ah Jin, MD[1], Ju Han Kim, MD, PhD[2], Myung Ho Jeong, MD, PhD[2], Shung Chull Chae, MD, PhD[3], Seung Ho Hur, MD, PhD[4], Young Jo Kim, MD, PhD[5], In-Whan Seong, MD, PhD[1], Jin-Ok Jeong, MD, PhD[1], and Korea Acute Myocardial Infarction Registry (KAMIR) and Korean Registry of Myocardial Infarction (KorMI) Investigators

Objectives: Thrombolysis In Myocardial Infarction (TIMI) flow after primary percutaneous coronary intervention (PCI) is an important prognostic factor in patients with ST-segment elevation acute myocardial infarction (STEMI). We reviewed TIMI flow (pre and post PCI) in patients with STEMI and analyzed clinical outcomes. **Methods:** Between October of 2005 and May of 2013, a total of 16,843 patients were registered with the KAMIR and KorMI. Of these, 8,428 patients with STEMI underwent primary PCI were enrolled. We compared clinical outcomes between the two groups divided by TIMI flow 0-2 vs. 3. One month and 1-year cariovascular death(CVD) and major adverse cardiac event (MACE) rates were compared between two groups. **Results:** Pre-PCI TIMI 3 flow was significantly decreased in one month CVD (2.4% vs 4.8%, $p=0.001$), 1-year CVD (3.8% vs 6.1% $p=0.002$), and 1-year MACE (9.4% vs 11.4% $p=0.047$) compared to others. Post-PCI TIMI 3 flow was significantly decreased in one month CVD (3.5% vs 16.7%, $p<0.001$), 1-year CVD (4.7% vs 18.5%, $p<0.001$) and 1-year MACE (10.0% vs 24.2%, $p<0.001$) compared to TIMI 0-2. In the multivariate Cox regression analysis, post-PCI TIMI 0-2 flow was an independent predictor of one month CVD (HR with 95% CI, 1.769 [1.318-2.374], $p<0.001$), 1- year CVD (1.695 [1.303-2.206], $p<0.001$) and 1-year MACE (1.475 [1.194-1.823], $p<0.001$). **Conclusions:** This study demonstrates that post-PCI TIMI 3 flow, not pre-PCI TIMI 3 flow, significantly decrease one month CVD, 1-year CVD, and 1-year MACE rate in patients with STEMI in Korea.

Table 1. Unadjusted and adjusted risks of pre- and post-procedural TIMI 0-2 flow versus pre- and post-PCI TIMI 3 flow for clinical outcomes.

Pre TIMI 0-2	Unadjusted Hazard ratio	*p*-value	Adjusted Hazard ratio	*p*-value
≤30 days CVD	1.421 [0.962-2.099]	0.077	1.233 [0.816-1.862]	0.320
1-year CVD	1.496 [1.084-2.063]	0.014	1.265 [0.903-1.773]	0.172
1-year MACE	1.198 [0.975-1.473]	0.086	1.111 [0.893-1.382]	0.334
Post TIMI 0-2	Unadjusted Hazard ratio	*p*-value	Adjusted Hazard ratio	*p*-value
≤30 days CVD	4.408 [3.438-5.650]	<0.001	1.769 [1.318-2.374]	<0.001
1-year CVD	3.908 [3.117-4.900]	<0.001	1.695 [1.303-2.206]	<0.001
1-year MACE	2.521 [2.097-3.030]	<0.001	1.475 [1.194-1.823]	<0.001