**ACUTE LEFT MAIN THROMBOSIS DURING EXERCISE TESTING**

**A. Quddus,** A. Smith, A. Singh, Y. Manda, P. Puleo, J. Shirani

Department of Cardiology, St. Luke’s University Health Network, Bethlehem, PA, USA

*Background.* Exercise stress testing (ETT), generally considered safe, may be associated with serious adverse events including acute coronary syndrome (0.04%) and sudden death (0.01%). We present a case of acute left main coronary artery (LMCA) thrombosis during ETT.

*Case.* 58-year-old physically active man with hypertension and dyslipidemia presented with new onset angina. Examination: blood pressure (BP) 134/94 mmHg, heart rate (HR) regular at 54 bpm, O2 saturation 98% (room air) and respiratory rate 16 bpm; clear lungs and normal heart sounds on auscultation. ECG: normal sinus rhythm without ST-T abnormalities. Laboratory studies unremarkable with negative troponin I (3 sets). TIMI score 0. Echocardiogram showed normal left ventricle (LV) size and function without wall motion abnormality. LV global longitudinal strain was normal without segmental variation. He underwent ETT (Bruce Protocol) which was stopped prematurely (at HR 100 bpm) after 3 min 54 seconds due to recurrence of presenting chest pain and diffuse down sloping ST segment depressions in inferolateral leads followed by ST elevation in V1, V2, aVL and aVR during recovery (figure 1A). Post-stress echocardiogram revealed severe hypokinesis of anterior, anteroseptal, anterolateral, and apical walls. LV appeared dilated with reduced function. He continued to have severe chest tightness (BP 60/40; HR 60) and appeared pale with profound diaphoresis. Emergent cardiac catheterization showed total acute thrombotic occlusion of LMCA that was immediately wired and ballooned, restoring antegrade flow (figures 1B and 1C). He underwent successful emergent coronary artery bypass grafting. Postperative (day 4) echocardiogram showed normal systolic function and mild hypokinesis of the apical septal wall.

*Conclusion.* To our knowledge, this is the first reported case of LMCA thrombosis following ETT. Maintenance and regular practice of appropriate emergency equipment and plans is fundamental to ensure patient safety during ETT.

