

Sex Differences in Outcomes of Endovascular Treatment for Symptomatic Lower Extremity Artery Disease

성균관대의대 삼성서울병원

*최익승, 최기홍, 박택규, 최승혁

Background/Aims: With advances in lower extremity artery disease (LEAD) treatments such as endovascular therapy (EVT), personalized patient assessment is important. Data on sex differences in clinical outcome for LEAD patients undergoing EVT have been limited and studies have produced conflicting results. This study sought to compare mid-term clinical outcomes between women and men in a large population of patients with LEAD undergoing EVT. **Methods:** The Korean Vascular Intervention Society Endovascular Therapy in Lower Limb Artery Disease (K-VIS ELLA) registry is a nationwide, multi-center, observational study which includes 3,073 LEAD patients undergoing EVT. The study population was divided into men ($n=2,523$) and women ($n=550$). The primary outcome was a composite of death, myocardial infarction (MI), and major amputation; the secondary outcome included major adverse limb events (MALE). **Results:** Women had more co-morbidities and more severe and complex target lesions than men. Women showed a higher risk of death, MI, or major amputation than men (14.8% vs. 9.8%, HR 1.350, 95% CI 1.017-1.792, $p=0.038$), and higher rates of MALE (19.9% vs. 14.5%, HR 1.301, 95% CI 1.014-1.670, $p=0.039$) and procedural complications (10.2% vs. 5.9%, $p<0.001$) based on multivariable analysis. In patients with claudication, the primary outcome incidence was significantly higher in women (HR 2.088, 95% CI 1.421-3.068, $p<0.001$). In contrast, there was no significant difference in primary outcome for patients with critical limb ischemia between the two groups (HR 1.164, 95% CI 0.800-1.694, $p=0.426$). A significant interaction ($p=0.035$) between patient presentation and outcome was observed. **Conclusions:** In a large population of patients with LEAD undergoing EVT, women had a higher risk of death, MI, or major amputation than men, and a higher risk of complex lesions, procedural complications, and limb-specific adverse events.

Figure 1 Study Flow

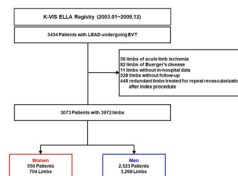


Figure 2 In-hospital Outcomes and Procedural Complication Rates According to Sex

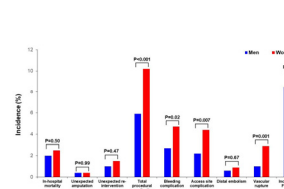


Figure 3 Comparison of 2-year Clinical Outcomes According to Sex Disparity

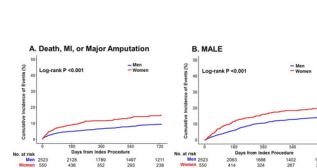
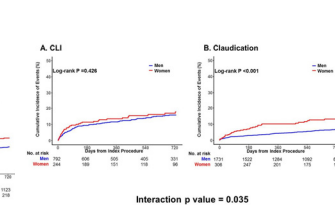


Figure 4 Differential Rates of Primary Outcome Between Men and Women According to Initial Presentation



Spontaneous Resolution of RV Akinesia

계명대학교 동산의료원 내과

*이희정, 김인철

Stress cardiomyopathy represents an acute heart failure syndrome that is associated with a substantial risk for adverse events. It is also associated emotional trigger, physical trigger, as to do no trigger caused to SCMP. SCMP mostly occurs at Lt ventricular chamber, especially apical type. However in some case, SCMP occurred at RV chamber. An 81-year-old female with hypertension transferred to our hospital for sudden onset dyspnea during of antibiotics treatment due to recurrent acute pyelonephritis. Her body temperature was high (39.5 °C). Chest x-ray showed cardiomegaly without pulmonary edema. Laboratory finding revealed leukocytosis and increased C-reactive protein, D-dimer (2.81 mcg/mL), NT-ProBNP (3,062 pg/mL). On echocardiography, LV systolic function was normal, however, RV wall showed akinetic motion with enlarged RV. By contrast enhanced cardiac CT, ventilation perfusion scan, cardiac MRI, We could exclude pulmonary thromboembolism, coronary stenosis, arrhythmogenic RV dysplasia. Cardiac MRI showed enlarged RV volume and reduced RV systolic function. RV showed akinetic motion at mid to apical areas, but sparing basal. On day 3, fever was subsided. We did follow up echocardiography, it showed the improved RV wall motion. Follow up Cardiac MRI also showed recovered mid to apical areas of RV wall motion and improved RV ejection fraction and RV volume. SCMP mostly occurs at Lt ventricular chamber, especially apical type. In contrast with this case, SCMP occurred at RV chamber. However, infection (both APN) actions a physical trigger in this case, then a physical trigger effects RV akinesia, finally it goes to spontaneous resolution after improvement of infection. Although RV stress induced cardiomyopathy is so rare, this case is model of the one.

