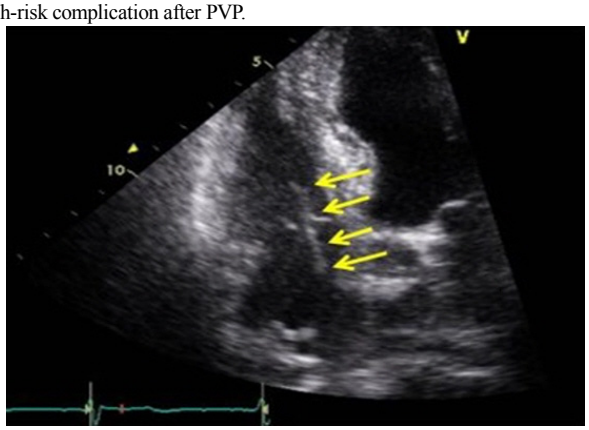
■ S-169 ■

Asymptomatic cement embolism in the right atrium after remote vertebroplasty: a case report

Department of Internal Medicine, Eulji University Hospital, Daejeon, Korea

*Jun Hyung Park, Ki-Woon Kang, Won Ho Kim, Yu Jeong Choi, Kyung Tae Jung, Jung Yeon Chin, Sang Hyun Park

Percutaneous vertebroplasty (PVP) is a relatively safe procedure for the management of vertebral compression fractures. Complications after PVP are rare and generally minor and asymptomatic. However, one among them is the bone cement leakage into the perivertebral venous system, from which the cement drift towards the right heart and the pulmonary circulation can occur. We report a case with an asymptomatic cement embolism (CE) in the right heart after PVP. A 71 year old female presented with right hip pain by a fracture of femoral neck. She had past medical history of hypertension and diabetes. Electrocardiography was normal. A linear radiopaque material was found in right heart on chest x-ray.Echocardiography for before orthopedic surgery revealed an elongated echogenic mass which was located from IVC to RA and RV. She undertook a PVP in the local orthopedic surgical center due to vertebral compression fracture 15 years ago. Chest CT scan showed a curvilinear radiopaque foreign body (about 5 cm in length) in IVC, RA and RV. Surgical intervention was not suggested by the cardiac surgeon because of high surgical risk. One year later, the patient still remained asymptomatic. Most patients with CE remain asymptomatic like our case. Nonetheless, such a complication can cause fatal consequences including pulmonary embolism and penetration of the heart. Transthoracic echocardiogrphy maybe enable early detection and treatment of cement cardiac embolizaion which is often associated with high-risk complication after PVP.



■ S-170 ■

Comparable outcomes of Intravascular ultrasound or optical coherence tomography-assisted PCI

Pusan National University Hospital

*Nakyoung Hwang, Jin Sup Park

Purpose: The use of intravascular ultrasound (IVUS) or Optical coherence tomography (OCT) to guide stent placement in percutaneous coronary intervention (PCI) leads to better clinical outcomes than use of angiography guidance. Hypothesis: we hypothesis which image-assisted PCI could lead better clinical outcomes in acute myocardial infarction (MI) patients. **Methods:** Among 12, 193 patients enrolled the Korean Acute Myocardial Infarction registry,1,622 patients undergone image-assisted PCI were assigned to the IVUS-assisted PCI group (n = 1406) or OCT-assisted PCI group (n = 180). The primary outcome was the composite of all-cause death, recurrent MI, including stent thrombosis, any revascularization and cerebrovascular accident (CVA) during the median 204 days of follow-up. We compared the outcomes between groups both in the crude and matched cohorts. **Results:** Compared to OCT-assisted PCI group, patients with IVUS-assisted PCI group had more current smoker and lower peak cardiac marker, lower serum level of creatinine, and pre-procedure TIMI 0 or 1. There were no significant differences in baseline angiographic characteristics after 1: 1 matched group comparisons. The composite of clinical events did not differ between groups both in the crude (hazard ratio [HR] 1.007, 95% confidence interval [CI] 0.560-1.809, $p = 0.982$) and matched (HR 1.300, 95% CI 0.560-3.019, $p = 0.542$) cohorts. **Conclusions:** This study suggested that both IVUS and OCT-assisted PCI might have good option for acute MI patients and comparable clinical outcomes.