编号：**YY004-20221226001**

标题：**Incidence, Characteristics, and Outcomes of Ventricular Fibrillation Complicating Acute Myocardial Infarction in Women Admitted Alive in the Hospital**

简介：Background Little data are available in women presenting with ventricular fibrillation (VF) in the setting of acute myocardial infarction (AMI). We assessed frequency, predictors of VF, and outcomes, with a special focus on women compared with men. Methods and Results Data were analyzed from the FAST-MI (French Registry of Acute ST-Elevation or Non-ST-Elevation Myocardial Infarction) program, which prospectively included 14 406 patients admitted to French cardiac intensive care units ≤48 hours from AMI onset between 1995 and 2015 (mean age, 66±14 years; 72% men; mean left ventricular ejection fraction, 52±12%; 59% with ST-segment-elevation myocardial infarction). A total of 359 patients developed VF during AMI, including 81 women (2.0% of 4091 women) and 278 men (2.7% of 10 315 men, P=0.02). ST-segment-elevation myocardial infarction (odds ratio [OR], 2.29 [95% CI, 1.75-2.99]; P<0.001) was independently associated with the onset of VF during AMI. In contrast, female sex (OR, 0.73 [95% CI, 0.56-0.95]; P=0.02), hypertension (OR, 0.75 [95% CI, 0.60-0.94]; P=0.01), and prior myocardial infarction (OR, 0.69 [95% CI, 0.50-0.96]; P=0.03) were protective factors. Women were less likely to have cardiac intervention than men (percutaneous coronary intervention during hospitalization 48.1% versus 66.9%, respectively; P=0.04) with a higher 1-year mortality in women compared with men (50.6% versus 37.4%, respectively; P=0.03), including increased in-hospital mortality (42.0% versus 32.7%, respectively; P=0.12). After adjustment, female sex was no longer associated with a worse 1-year mortality (adjusted hazard ratio, 1.10 [95% CI, 0.75-1.61]; P=0.63). Conclusions Women have lower risk of developing VF during AMI compared with men. However, they are less likely to receive cardiac interventions than men, possibly contributing to missed opportunities of improved outcomes.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108607

编号：**YY004-20221226002**

标题：**New insights into the central sympathetic hyperactivity post-myocardial infarction: Roles of METTL3-mediated m6 A methylation**

简介：Ventricular arrhythmias (VAs) triggers by sympathetic nerve hyperactivity contribute to sudden cardiac death in myocardial infarction (MI) patients. Microglia-mediated inflammation in the paraventricular nucleus (PVN) is involved in sympathetic hyperactivity after MI. N6-methyladenosine (m6 A), the most prevalent mRNA and epigenetic modification, is critical for mediating cell inflammation. We aimed to explore whether METTL3-mediated m6 A modification is involved in microglia-mediated sympathetic hyperactivity after MI in the PVN. MI model was established by left coronary artery ligation. METTL3-mediated m6 A modification was markedly increased in the PVN at 3 days after MI, and METTL3 was primarily located in microglia by immunofluorescence. RNA-seq, MeRIP-seq, MeRIP-qPCR, immunohistochemistry, ELISA, heart rate variability measurements, renal sympathetic nerve activity recording and programmed electrical stimulation confirmed that the elevated toll-like receptor 4 (TLR4) expression by m6 A modification on TLR4 mRNA 3'-UTR region combined with activated NF-κB signalling led to the overwhelming production of pro-inflammatory cytokines IL-1β and TNF-α in the PVN, thus inducing the sympathetic hyperactivity and increasing the incidence of VAs post-MI. Targeting METTL3 attenuated the inflammatory response and sympathetic hyperactivity and reduced the

incidence of VAs post-MI.

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编号：**YY004-20221226003**

标题：**Characteristics, in-hospital management, and complications of acute myocardial infarction in northern and Central Vietnam**

简介：Introduction: Contemporary data on the epidemiology of acute myocardial infarction (AMI) in Vietnam are extremely limited. Methods: We established population-based registries of residents from 2 provinces in a northern urban (Hai Phong), and a central rural (Thanh Hoa), province of Vietnam hospitalized with a validated first AMI in 2018. We described patient characteristics, in-hospital management and clinical complications, and estimated incidence rates of AMI in these two registries. Results: A total of 785 patients (mean age = 71.2 years, 64.7% men) were admitted to the two hospitals with a validated first AMI. Approximately 64% of the AMI cases were ST-segment-elevation AMI. Patients from Thanh Hoa compared with Hai Phong were more likely to delay seeking acute hospital care. The incidence rates (per 100,000 population) of initial AMI in Thanh Hoa and Hai Phong were 16 and 30, respectively. Most patients were treated with aspirin (Thanh Hoa: 96%; Hai Phong: 90%) and statins (both provinces: 91%) during their hospitalization. A greater proportion of patients in Hai Phong (69%) underwent percutaneous revascularization than those in Thanh Hoa (58%). The most common in-hospital complications were heart failure (both provinces:12%), cardiogenic shock (Thanh Hoa: 10%; Hai phong: 7%); and cardiac arrest (both provinces: 9%). The in-hospital case-fatality rates for patients from Thanh Hoa and Hai Phong were 6.8% and 3.8%, respectively. Conclusions: The incidence and hospital case-fatality rates of AMI were low in two Vietnamese provinces. Extent of pre-hospital delay and in-hospital use of evidence-based therapies were suboptimal, being more prominent in the rural province.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108608

编号：**YY004-20221226004**

标题：**Using latent class analysis to identify clinical features of patients with occlusive myocardial infarction: Preangiogram prediction remains difficult**

简介：Background: Treatment decisions in myocardial infarction (MI) are currently stratified by ST elevation (ST-elevation myocardial infarction [STEMI]) or lack of ST elevation (non-ST elevation myocardial infarction [NSTEMI]) on the electrocardiogram. This arose from the assumption that ST elevation indicated acute coronary artery occlusion (OMI). However, one-quarter of all NSTEMI cases are an OMI, and have a higher mortality. The purpose of this study was to identify features that could help identify OMI. Methods: Prospectively collected data from patients undergoing percutaneous coronary intervention (PCI) was analyzed. Data included presentation characteristics, comorbidities, treatments, and outcomes. Latent class analysis was undertaken, to determine patterns of presentation and history associated with OMI. Results: A total of 1412 patients underwent PCI for acute MI, and 263 were diagnosed as OMI. Compared to nonocclusive MI, OMI patients are more likely to have fewer comorbidities but no difference in cerebrovascular disease and increased acute mortality (4.2% vs. 1.1%; p < .001). Of OMI, 29.5% had delays to their treatment such as immediate reperfusion therapy. With latent class analysis, while clusters of similar patients are observed in the data set, the data available did not usefully

identify patients with OMI compared to non-OMI. Conclusion: Features between OMI and STEMI are broadly very similar. However, there was no difference in age and risk of cerebrovascular disease in the OMI/non-OMI group. There are no reliable characteristics therefore for identifying OMI versus non-OMI. Delays to treatment also suggest that OMI patients are still missing out on optimal treatment. An alternative strategy is required to improve the identification of OMI patients.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108612

编号：**YY004-20221226005**

标题：**Epidemiology, reperfusion management, and outcomes of patients with myocardial infarction in Greece: The ILIAKTIS study**

简介：Objective: Acute myocardial infarction (AMI) is one of the leading causes of death; however, updated data regarding clinical presentation and current management are missing in Greece. This study aimed to prospectively record the demographic and clinical characteristics of a representative sample of patients suffering from AMI, their management, and short-term outcomes. Methods: ILIAKTIS is a national, prospective, multicenter, noninterventional study conducted under the auspices of Hellenic Society of Cardiology (HCS) and the European Initiative Stent - Save a Life. From 1st April 2020 to 30th June 2020, consecutive adult patients with STEMI or NSTEMI were enrolled in the 50 participating hospitals, appropriately selected to match the geographical and population distribution in the Greek territory. Results: In total, 1862 patients (mean age: 64.2 ± 13.2 yrs.; 77.2% males) with AMI were enrolled. More patients presented with NSTEMI (56.8%) than with STEMI (43.2%). Primary PCI (pPCI) was the preferable treatment option for STEMI patients in PCI-hospitals (76.9% vs. 39.9% for non-PCI, p < .001) and thrombolysis in non-PCI-hospitals (47.3% vs. 17.9% for PCI-hospitals, p < .001). The mean length of hospital stay was 5.6 days. In-hospital mortality was less likely in NSTEMI compared to that in STEMI patients (aOR = 0.30; 95% CI 0.18 to 0.49). Patients initially admitted in non-PCI-hospitals showed increased risk for in-hospital (aOR = 2.29; 95% CI 1.20 to 4.42) and 30-day mortality (aOR = 1.88; 95% CI 1.20 to 2.96). Conclusion: This study shows that the proportion of STEMI and NSTEMI patients managed interventionally has significantly increased, resulting in better clinical outcomes compared to previous Greek surveys.

全文链接：https://pan.ckcest.cn/rcservice//doc?doc_id=108610