1. No.
   2017T002

2. Title
   Pathogenic role of smoking habits and inflammation in cardiovascular disesase; Multidimensional clinical and epidemiologic study

3. Period
   2017-2021

4. Summary
   We have evaluated the relationship between smoking habits and inflammation in cardiovascular disease: a multifaceted clinical and epidemiological study in three groups. Saito et al. of Nara Medical University examined the association between smoking prevalence and heart failure rehospitalization in patients with acute heart failure and reported that the effect of prior smoking on heart failure rehospitalization was strongest in patients with HFrEF and was an independent risk factor in multivariate analysis.

   Tsujita et al. of Kumamoto University examined ALDH2 gene mutations in patients with ST-segment elevation myocardial infarction, and found that the ALDH2*2 variant group contributed to ischemia-reperfusion injury in the current smoking group, suggesting that the effect of smoking on reperfusion injury may be strong in STEMI patients with ALDH2*2 variant.

   Noguchi et al. at the National Cerebral and Cardiovascular Center conducted a study of noninvasive imaging using MRI to identify high-risk coronary artery plaques, and published the world's first report that smoking habit is associated with the presence of coronary artery HIP (high-risk coronary artery plaque). In addition, they demonstrated that the presence of coronary HIP reflects is an independent predictor of positive ischemia with FFR less than 0.8.