Is Cocaine-associated Acute Myocardial Infarction the Same as Myocardial Infarction Associated With Recent Cocaine Consumption?

¿Los trastornos por cocaína asociados al infarto agudo de miocardio son lo mismo que el infarto de miocardio asociado al consumo reciente de cocaína?

To the Editor,

We read with great interest the article published recently by Gili et al., who studied the relationship between cocaine use disorder and the incidence and outcome of acute myocardial infarction by analyzing the Minimum Basic Data Set (MBDS) of 87 hospitals in Spain. The study concluded that cocaine use disorders increased the risk of myocardial infarction 3-fold, thereby extending hospital stay and increasing costs.

As the authors themselves note, the study design could be limited by MBDS coding, which may underestimate the prevalence of cocaine use. If we compare the data with a prospective registry run by our group of consecutive patients younger than 50 years, admitted with acute coronary syndrome, who underwent a structured interview on their history of chronic cocaine use and a cocaine metabolites urine test, the prevalence of cocaine use was 11.7% and recent use as demonstrated by the urine test results was 5.2%. These figures are much higher than those reported by Gili et al.1 and are in line with other studies that systematically measured metabolites in urine.2 We should also remember that large biases may be present in the way patients with chest pain are questioned about cocaine use in clinical practice. In 44% of patients, the physician taking the medical history does not ask about cocaine, with obvious differences according to the individual’s sociodemographic profile.3 Likewise, patients themselves are also a source of bias as a nonnegligible proportion do not admit to cocaine use even after a positive urine test result.2,4

In cases of acute myocardial infarction, recent cocaine use is an important prognostic factor in young patients, as it increases the complications of the acute myocardial infarction itself, as well as in-hospital mortality.5 In view of the importance of cocaine use as a prognostic factor and the difficulty of detecting such use in the initial contact, the European guideline on acute coronary syndrome recommends specific questions about cocaine use as part of the medical history and systematic measurement of cocaine metabolites in urine as part of the work-up.6

Assessment of the extent of cocaine use and myocardial infarction through the MBDS may be an interesting initial approach. However, we wonder whether the authors think that the prevalence of myocardial infarction associated with recent cocaine use may be underestimated, given the differences in the detection of cocaine use among studies. Could this underestimation and the greater age of patients with myocardial infarction at inclusion also have led to an underestimation of the prognostic effect of recent cocaine use on acute myocardial infarction? From our standpoint, we think it is important to differentiate between

References


2. http://dx.doi.org/10.1016/j.rec.2014.05.019