

Predictors and Prevalence of Obstructive Coronary Artery Disease in Patients Who Underwent Elective Invasive Coronary Angiography for Chronic Coronary Syndrome [Letter]

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Dear editor

The research with the title above has produced very valuable findings, which can be used as a basis for decision-making in order to improve the quality of service. In this case, researchers found four significant predictors of obstructive coronary artery disease (CAD) in patients who underwent elective invasive coronary angiography for chronic coronary syndrome, namely typical chest pain, diabetes mellitus (DM), chronic kidney disease, and smoking. Meanwhile, five other factors (age, sex, hypertension, pre-test probability and Framingham score) were not proven to be significant predictors.¹

In this case, the researchers used logistic regression test, so that in the hypothesis, it was assumed that these nine factors had a direct effect on obstructive CAD. However, we believe that there are actually several factors that have an indirect effect, such as age and sex. For example, increasing age increases the risk of DM, and DM further increases the risk of obstructive CAD. We also consider that the Framingham score and pre-test probability are not independent predictors of other factors including age, sex, chest pain, hypertension, smoking, diabetes and dyslipidemia, so they can be excluded from the analysis.

Thus, we recommend that further analysis be carried out, so that the significance of the influence of each predictor can be determined, both directly and indirectly, with an appropriate method, namely path-analysis.^{2,3} This analysis will be much easier to carry out if it is done using a diagram-based statistical program. Because the researcher involves categorical data, an appropriate statistical program must be selected. In this case, one of the recommended programs is Smart-PLS because it is very popular, easy to operate with or without involving other statistical programs, and is specifically for modeling involving categorical data.²⁻⁵

It is hoped that this further analysis will provide more complete and in-depth information so that it can become the basis for accurate decision-making for the hospitals concerned. It would be very valuable if the results of this analysis could be published again in this journal as a response to our letter, so that it also provides new information that is useful for a wide audience.

Disclosure

The author reports no conflicts of interest in this communication.

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