RESPONSE TO COMMENT ON GERBAUD ET AL.

Glycemic Variability Is a Powerful Independent Predictive Factor of Midterm Major Adverse Cardiac Events in Patients With Diabetes With Acute Coronary Syndrome. Diabetes Care 2019;42:674–681

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Diabetes Care 2019;42:e170–e171 | https://doi.org/10.2337/dci19-0033

We thank Yang and Hu (1) for their interest in our study (2) on the prognostic value of glycemic variability (GV) in patients with diabetes with acute coronary syndrome (ACS).

First, with respect to the comment (1) by Yang and Hu, a Cox proportional hazards regression analysis was carried out additionally including all similar variables as previously studied (2). This multivariable analysis demonstrated that GV still remains the strongest independent predictive factor for midterm major adverse cardiovascular events (MACE) in patients with diabetes with ACS: hazard ratio 2.20 [95% CI 1.67–2.90; $P < 0.001$]. Furthermore, regarding the impact of the hypoglycemia status in this multivariable adjusted model, analysis of deviance was conducted to assess whether each of the individual terms in the regression are statistically significant after adjusting for all other terms in the model. Thus, the results of a χ^2 test showed that each of the individual variables included in the multivariate model were still statistically significant after adjusting for status of hypoglycemia.

Second, nowadays, three parameters seem to be preferred for assessing GV: *1*) the SD around the mean glucose values, because it remains the "gold standard"; *2*) the mean amplitude of glycemic excursions (MAGE), because its calculation is relatively simple and allows the achievement of the major intraday glucose oscillations while minor ones are not taken into account; and *3*) the mean of daily differences (MODD), because it is the sole parameter to provide an assessment of the interday glycemic variability (3). SD is probably the most appropriate and easiest tool for assessing GV for everyday use in the intensive cardiovascular care unit. Time in range is another tool, but continuous glucose monitoring is currently not validated in the intensive cardiovascular care unit. Furthermore, blood glucose stability is needed for calibration, and the most fragile patients are especially instable with regard to this parameter.

Third, we agree with the commenters' concern about the real additional value of intensive insulin administration in patients with diabetes with ACS. However, as previously described, our own clinical practice in this acute setting followed the French Society of Cardiology guidelines (4,5).

Duality of Interest. No potential conflicts of interest relevant to this article were reported.

References

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