



RESPONSE TO COMMENT ON NORDWALL ET AL.

Impact of HbA_{1c}, Followed From Onset of Type 1 Diabetes, on the Development of Severe Retinopathy and Nephropathy: The VISS Study (Vascular Diabetic Complications in Southeast Sweden). Diabetes Care 2015;38:308–315

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We thank Dr. Takahara (1) for the comment on our recent article exploring the impact of HbA_{1c} followed from diabetes onset, on the development of severe microvascular complications (2). As suggested, we have validated our results with Cox hazards analysis with severe microvascular events, i.e., laser-treated proliferative retinopathy and macroalbuminuria as a dependent variable and HbA_{1c} (mmol/mol) as a time-dependent covariate.

For laser-treated proliferative retinopathy, we found a hazard ratio of 1.038 (95% CI 1.025–1.052, $P < 0.001$) and for macroalbuminuria, a hazard ratio of 1.075 (95% CI 1.050–1.100, $P < 0.001$).

Analyzing our data with Cox hazards analysis thus shows the strong influence of long-term HbA_{1c} on severe

microvascular complications, in agreement with our previous conclusions.

In our article, we chose to analyze and present the results in a way that was perhaps easier for a clinician to interpret and apply in clinical routine. With life-table analysis we found that the incidence of both laser-treated proliferative retinopathy and macroalbuminuria increased sharply and occurred earlier with increasing long-term weighted mean HbA_{1c}. In the same manner, the prevalence of microvascular complications increased steeply with higher long-term weighted mean HbA_{1c}, categorized in different groups.

In conclusion, our study irrespective of statistical methods shows a strong association between development of late complications and long-term mean HbA_{1c}, and keeping the average HbA_{1c}

below 7.6% (60 mmol/mol) seemed sufficient to prevent microvascular complications for at least up to 20 years.

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

References

1. Takahara M. Impact of HbA_{1c} followed from onset of type 1 diabetes, on the development of severe retinopathy and nephropathy: the VISS Study (Vascular Diabetic Complications in Southeast Sweden). Diabetes Care 2015;38:308–315 (Letter). Diabetes Care 2015;38:e123. DOI: 10.2337/dc15-0652
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