COMMENT ON RETNAKARAN ET AL.

Liraglutide and the Preservation of Pancreatic β-Cell Function in Early Type 2 Diabetes: The LIBRA Trial. Diabetes Care 2014;37:3270–3278

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Retnakaran et al. (1) claim in their recent article that liraglutide preserves β-cell function in type 2 diabetes. We doubt whether their methodology and results prove that liraglutide independent of its effect on glucose and weight is β-cell protective. In their study, after stopping all antidiabetes medication in the prerandomization phase, glucose control was improved by intensified insulin therapy. However, insulin secretion did not improve during this treatment in the placebo group (see Fig. 1*A* in ref. 1) and only slightly in the liraglutide group. This indicates that in the prerandomization period insulin treatment was not effective in improving β-cell function in this study and subsequent antihyperglycemic effects of the study medication might have contributed to the results. This is underlined by an improvement of glucose control only after initiation of liraglutide treatment (see Fig. 2*A* in ref. 1). In addition, after the initiation of liraglutide, BMI and waist circumference markedly decreased. Hence, the increase in the β-cell secretory capacity could have been due to weight reduction and/or lowering of blood glucose and not to an effect of liraglutide (2). Most regretfully, no data for BMI are reported after the medication has been stopped. The fact that the insulin secretory capacity was much lower 2 weeks after stopping liraglutide treatment when compared with baseline further argues against a β-cell–preserving therapeutic potential of liraglutide. Much rather this effect may have been caused by direct or indirect mobilization of the so-called β-cell reserve as can be achieved with arginine, for example (3,4). The results of another study (5), which has shown no difference regarding the effect of blood glucose reduction on an improvement in β-cell function by means of insulin, exenatide, and pioglitazone, also argue against a specific effect of incretin mimetics on β-cell function.

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

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