Author's Reply to Dayal: "Therapies to Preserve β -Cell Function in Type 1 Diabetes"

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Dear Editors

In his comment [1] on "Therapies to Preserve β -Cell Function in Type 1 Diabetes" [2], Devi Dayal, while overall very positive about the review, suggests that vitamin D deserves a stronger position and claims that the evidence is strong enough to recommend vitamin D in higher doses as part of any future therapy to preserve residual β -cell function, referring to a number of publications. However, well-designed clinical studies so far have not found any effect on β -cell preservation [3, 4], and this is not refuted by less well-designed small studies with short follow-up that have shown no or insignificant efficacy. There are certainly studies supporting beneficial effects of vitamin D on the immune system, showing improved regulatory T cell function and type 2 T helper cell deviation, which might strengthen therapies in type 1 diabetes. Vitamin D also affects β cells directly, thereby rendering them more resistant to cellular stress [5]. Thus, there is encouraging evidence to include vitamin D in combination therapies. The dose needed to give adequate serum concentrations may vary depending on sun exposure (geography, season, clothing, culture), but 2000 U/day, or perhaps a slightly higher dose, should be safe and still expected to have the desired effects.

Compliance with ethical standards

Conflicts of interest The author declares no conflicts of interest related to this letter.

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