

# *Comment on: “Prediction of Diabetes Remission in Morbidly Obese Patients After Roux-en-Y Gastric Bypass.”*

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## Comment on: “Prediction of Diabetes Remission in Morbidly Obese Patients After Roux-en-Y Gastric Bypass.”

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Dear Editor,

We read with great interest the article “Prediction of Diabetes Remission in Morbidly Obese Patients After Roux-en-Y Gastric Bypass” by Park and Kim [1]. We appreciate the data presented and would like to share our comments and suggestion.

Prediction of success in metabolic surgery is a critical topic, as it evaluates the need of subjecting a patient (with comorbidities) to a major gastrointestinal surgery with an intent to obtain remission of type 2 diabetes along with correction of other metabolic derangements. A poor result (non-remission) can be counterproductive, especially with its life-long side effects of malabsorption, marginal ulcers, etc., hence unjustified. So the quest for prediction of T2DM remission following metabolic surgery is not new and has been studied earlier by several investigators [2–6]. In the above study, the authors have presented their data (from Korea) of 134 patients, followed up for 12.3 months (mean) and have concluded that the predictive factors for diabetes remission after RYGB include, age at operation, HbA1c and C-peptide levels, and the %TWL after surgery [1].

*Our points:* Out of the above predictors, HbA1c as a predictor of remission seems to be a simplistic criterion. As metabolic surgery reduces the HbA1c approximately by 2 % in all patients, the ones closer to the remission level

(6.0 %) will surely have greater chances of remission. Additionally, our question here is, whether metabolic surgery should be recommended in these marginal cases, instead of intensive medical management. Secondly, the %TWL as a criteria cannot be used for prediction as it is a post-operative measurement, and hence unavailable to make a decision preoperatively.

We had earlier proposed an entirely preoperative ABCD score [6] to predict the remission in diabetics undergoing metabolic surgery and have published our results showing its validation in short-term (one year) and long-term (5 years) prediction [6, 7]. In both situations, we have reported it to be very effective. This multidimensional score is calculated using four preoperative criteria. Each of these criteria were short-listed, after it had shown statistically significant difference between those who had remission and those who did not, among the 23 different preoperative criteria we had compared among the patients at our center [6]. The four predictive criteria, derived after multiple regression analysis in the above study, were as follows: measure of physiological reserve ( $A$  = age), degree of obesity ( $B$  = BMI),  $\beta$  cell reserve ( $C$  = fasting C-peptide) and natural deterioration ( $D$  = duration) of diabetes. Our analysis also showed that each of these four criteria had independent influence over the remission rates [6]. We also have recently published our comparative study with the DiaRem score [8].

Hence, we would like to suggest, if the esteemed authors could use their valuable data to also validate the efficacy of ABCD score (and DiaRem score) to prognosticate the remission of T2DM, in their cohort. This may lead to better understanding and identification of the factors that have greater preoperative power of prediction of T2DM remission, across different ethnicities and centers, and may work towards to a widely applicable, standardized, preoperative scoring system for the prediction of T2DM remission in metabolic surgery.

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## Compliance with Ethical Standards

**Conflicts of Interest** The authors declare that they have no conflicts of interest.

**Human and Animal Rights and Informed Consent** This article does not contain any studies with human participants or animals performed by any of the authors. Obtaining informed consent does not apply to this article.

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