

Commentary about New Perspectives on Weight Loss in Obese Peruvian Patients

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Commentary

Obesity is a major health care issue into the morbidity resulting from this condition, another illnesses such as diabetes mellitus, arterial hypertension, and metabolic syndrome, among others [1]. Peru is a medium-income developing country and type 2 diabetes (T2DM) affects 7% of the population [2]. Although lifestyle modifications and medical therapy are the mainstays of management for obesity and T2DM, adequate glycemic control is difficult to achieve in most obese patients with T2DM [3]. Matthews et al. describe in 1985 the HOMA index ("Homeostasis model assessment") based on the assumption that insulin blood levels and blood sugar levels before meal with or without normal glucose tolerance are set at a specific level of their own organism [4]. The HOMA model has proved be a robust clinical and epidemiological tool in descriptions of the pathophysiology of diabetes. It has become one of the standard tools in the armamentarium of the clinical physiologist [5].

Bariatric surgery is a potent metabolic procedure that super-cedes intensive lifestyle management for obesity. However, not all individuals respond to bariatric surgery to the same extent. Indeed, much of the existing data analyzing those who do not improve hyperglycemia post bariatric surgery have focused on predictive baseline variables, such as age and duration of T2DM, that are related to individuals with reduced capacity to secrete insulin and/or have elevated levels of inflammation [6]. Bariatric surgery patients are expected to lose approximately 60% of the excess bodyweight, depending on the type of surgery. Nevertheless, weight loss trajectories after bariatric surgery are not uniform, and some patients do not achieve or are unable to maintain expected weight losses [7]. However, this weight loss helps to achieve a metabolic balance, while helping to control or prevent the appearance of other comorbidities.

Reliable preoperative predictors of weight loss success after surgery remain elusive. In short-term follow-up studies, several factors have been associated with less weight loss after surgery. However, few studies evaluating predictive factors of weight loss success after bariatric surgery are available with longer-term follow-up [8]. We analyze a retrospective cohort including 91 patients with body mass index (BMI) ≥ 35 kg/m² with some comorbidities, who underwent primary sleeve gastrectomy in a single institution and reveals that higher pre-surgical values of insulin serum, calculated by the HOMA-Index, predicts higher rates of excess weight lost percentage (EWL%) one year after bariatric surgery. Is the first research in Peru, a Latin American country, to focus in this point? In addition, there are other predictors of overweight loss [9].

It is important to note that the HOMA index helps us identify how much insulin resistance is found in obese patients undergoing bariatric surgery. Not everyone with a higher HOMA index will necessarily have T2DM. Until today the predictors of weight loss after bariatric surgery are not completely known. The reasons for individual differences in surgically induced weight loss are not fully understood, and no studies specifically targeting the effects of insulin resistance have been found. In general, patients with higher plasma glucose levels are considered to produce more insulin to maintain homeostasis. This hyperinsulinemic environment could generate resistance to weight loss, since insulin inhibits lipolysis and promotes lipogenesis [10]. However; we found the opposite, so we consider it pertinent to carry out more studies focused on this topic.

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