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## Predictors of type 2 diabetic remission of obesity individuals undergoing laparoscopic sleeve gastrectomy

Ngan Thi Kim Nguyen and Wang Weu Taipei Medical University, Taiwan

**Background & Aim:** Obesity and type 2 diabetes mellitus (T2DM) have become increasingly pandemic diseases in the world. By 2035, diabetes is expected to be mainly contributable in Asian populations who develop diabetes at younger ages than Western counterparts. The conservative therapies could not gain achievement in morbid obesity-induced T2DM compared to the metabolic/bariatric surgeries. Laparoscopic sleeve gastrectomy (LSG) has been increasing in Asia due to its simplicity and efficiency in weight management. Although weight loss is considered as a sign to improve insulin resistance in the diabetes, diabetic remission resulting from metabolic surgery for the obesity-T2DM patients who underwent LSG is still controversial. The optimal outcomes depend on selected markers from preoperative factors that are referred as prognostic values. The objective of this study is to investigate the diabetic remission and the possible preoperative diabetic predictors by using the latest standards of medical care in diabetes-2017 of American Diabetes Association.

**Materials & Methods:** We selected obesity patients who acquired T2DM and underwent LSG within 12 months. The complete diabetic remission was defined as glycated hemoglobin (HbA1c) <5.7% or fasting blood glucose <100 mg/dL within one year without medication therapy or ongoing procedures. Changes of body composition and biomarkers were evaluated as preoperative predictors.

**Results:** 129 T2DM patients who underwent LSG with mean body max index 41.3±6.8 kg/m2. After 12-month follow-up, there were 59.7% (57/94) in the complete diabetic remission.

**Conclusion:** It is expected that waist circumference, C-peptide and C-reactive protein involved in diabetic remission, which further suggest the diabetic remission of LSG in obesity-diabetes patients.

kimngan1702@gmail.com