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## Nonsurgical complications after bariatric surgery

Caroline Simoens<sup>1,2</sup>, Astrid Verbiest<sup>1</sup>, Wout Van der Borgh<sup>3</sup>, Amber Van den Eynde<sup>1,3</sup>,  
Karen Brenninkmeijer<sup>3</sup>, Carolien Moyson<sup>3</sup>, Christophe Matthys<sup>1,3</sup>, Ann Meulemans<sup>1,3</sup>,  
Matthias Lannoo<sup>1,4</sup>, Bart Van der Schueren<sup>1,3</sup> and Ann Mertens<sup>1,3</sup>

<sup>1</sup>Clinical and Experimental Endocrinology, Department of Chronic Diseases, Metabolism and Ageing, KU Leuven, Leuven, Belgium,

<sup>2</sup>Laboratory of Ion Channel Research, Department of Cellular and Molecular Medicine (VIB & KU Leuven Center for Brain & Disease Research), Leuven, Belgium,

<sup>3</sup>Department of Endocrinology, University Hospitals Leuven, Leuven, Belgium and

<sup>4</sup>Department of Abdominal Surgery, University Hospitals Leuven, Leuven, Belgium

### Abstract

The increasing worldwide prevalence of obesity is a major public health concern, which has led to the development of surgical treatment strategies that achieve long-term sustainable weight loss and improvement of comorbidities and quality of life. However, non-surgical complications can occur which sometimes necessitate hospital readmission depending on the severity. Current literature about hospital admission for nonsurgical complications after bariatric surgery is especially sparse. We performed a 5-year retrospective analysis of patients admitted for nonsurgical complications after bariatric surgery at the Department of Endocrinology, University Hospitals Leuven (Belgium). Patient and readmission characteristics were described by type of first bariatric surgery performed, time after first surgery, amount of bariatric surgeries in total, reason for hospitalization (nutritional, functional, psychological, metabolic and medical), need for parenteral and enteral feeding during hospitalization and duration of hospitalization. In a period of five years, there were 152 hospitalizations of 107 patients (86% females). The majority of patients (53%) underwent Roux-en-Y gastric bypass (RYGB) and had in total 1 (1–2) bariatric procedures. The median BMI before the first bariatric procedure was 40.7 (37.9–46.7) kg/m<sup>2</sup>. Patients were admitted 7.6 (3.4–13.1) years after surgery at an average age of 49 ± 12 years. Nutritional (66.4%), functional (37.5%) and co-presenting nutritional-functional (25.0%) problems were the most important reasons for hospitalization. In regard to the nutritional complications, the most important reasons for hospital admission were dumping syndrome (19.7%), macro- and micronutrient deficiencies (16.4%), bad compliance to prescribed nutritional guidelines (14.5%), anorexia (11.2%), extensive weight loss (10.5%) and failure to thrive (9.2%). During hospitalization, parenteral and enteral feeding was started in 19.1% and 9.9% of hospitalizations, respectively. The median duration of all hospitalizations was 8 (4–13) days. To conclude, the majority of hospitalized patients underwent RYGB and was female. Most patients were admitted late after surgery and nutritional problems were the most common complication. Nonsurgical complications after bariatric surgery are a clear illustration of the double-edged sword of surgical obesity management. The exact gastrointestinal anatomical and physiological changes provide the intended effect of weight loss, but may also elicit unintended imbalances of excessive losses of nutrients that compromise the outcome. Our findings demonstrate the need for lifelong multidisciplinary follow-up of lifestyle behavior and education on diet both before and after bariatric surgery.

### Conflict of Interest

There is no conflict of interest.