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Editorial

Nutritional Deficiencies after Sleeve Gastrectomy Myth or Reality?

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Editorial

Sleeve Gastrectomy (SG) is a rapidly growing restrictive procedure of bariatric surgery. Like all other surgical restrictive procedures, it's supposed to spare the patient the risk of vitamin and micronutrients deficiencies caused by other procedures depending on intestinal malabsorption or both. The most reported deficiencies occurring after SG are those in Vitamin B12, B1, Vitamin D and Folate.

In spite of the fact that SG is a purely restrictive technique, it may induce vitamins intake deficiencies even in the absence of malabsorption. These deficiencies should be considered in the face of all suggestive clinical manifestations and mainly in case of rapid loss of body weight. Their early detection and treatment prevent the onset of permanent sequelae and mainly of the neurologic ones such as Wernicke's encephalopathy that have been reported in the literature [1].

First and for most, the study of Belfiore [2] shows that weight loss occurring after SG is associated with marked reduction in dietary intake and with an important loss of body cell mass. Moreover, deficiencies in Zinc and water-soluble vitamins moved to respond poorly to multivitamins supplementation in these patients.

In his study, Van Rutte [3] undertook to analyze the preoperative and postoperative statuses of 200 morbidly obese patients undergoing a sleeve gastrectomy. Many patients suffered from micronutrient deficiencies before surgery. One year after surgery, there was no improvement in the nutrient statuses of these patients. The micronutrient deficiencies not only persisted but were even found de Novo in many patients in spite of considerable weight loss and supplementation.

However, we noted significant deficiency reductions in Folate and Vitamin D. After sleeve gastrectomy, patients are prone to develop nutritional deficiencies due to restrictive dietary intake, to decreased HCL and Intrinsic Factor secretion, to frequent post-operative vomiting, to rapid weight loss and to intolerance to some foods (meat, milk, fibers) leading to replacement by other less nutritive foods.

Preoperative deficiencies in minerals (Mg and Zn) are rare. Iron deficiency is caused by the decreased absorption of iron following the decreased secretion of HCL after resection of Fund us and postoperative prescription of Proto Pump Inhibitor (IPP).

In the absence of clear agreement on the way these patients should be taken care of, two thirds of bariatric surgeons systematically prescribe Vitamins and micronutrient supplementation.

This standard supplementation proved to be ineffective in some patients who developed acute deficiencies likely to lead to serious consequences.

At the least presenting symptom, the appropriate plasma concentration measurement should be performed. In fact, as there is no broad consensus on postoperative management of these patients, surgeons should be attentive and should inform their patients of the clinical manifestations of vitamins and micronutrient deficiencies. Routine measurements of serum concentration may help clinicians detect these deficiencies early and consequently treat their patients more effectively.

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