Case Reports

Mirtazapine (Remeron™) as Treatment for Non-Mechanical Vomiting after Gastric Bypass

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Two morbidly obese patients are reported who underwent gastric bypass and suffered nausea and vomiting 1 month after the operation. Endoscopy and upper GI series showed no evidence of stomal stenosis or other mechanical cause for a GI obstruction. Control of vomiting by current antiemetic drugs such as bromopride and ondansetron was unsuccessful. The patients were then given Remeron Soltab™ (mirtazapine, Organon, Brazil) 30 mg once per day orally for 2 to 8 months. Nausea and vomiting disappeared within days after beginning the medication.

Stomal stenosis is the main cause of vomiting after gastric bypass. After ruling out mechanical causes, other reasons for postoperative vomiting must be considered. Mirtazapine is a noradrenergic and specific serotonergic antidepressant, which blocks the 5-HT3 receptor, leading to an antiemetic effect. It has successfully been used as an antiemetic drug in patients undergoing chemotherapy. We concluded that mirtazapine may be a successful option to treat non-mechanical postoperative vomiting in morbidly obese patients after gastric bypass.

Key words: Morbid obesity, gastric bypass, postoperative complication, vomiting, mirtazapine, antiemetics

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Introduction

Roux-en-Y gastric bypass (RYGBP) is a common effective operation for treatment of clinically severe obesity.1 RYGBP is relatively safe and provides long-term weight loss.2 However, it has been reported that 1% to 5% of the patients may experience uncontrolled vomiting after the operation.3 Stomal stenosis of the gastroenterostomy is the major cause of vomiting after open or laparoscopic RYGBP.3 The problem is usually resolved by endoscopy and anastomotic dilatation. However, some of these patients may have a non-mechanical cause for the vomiting, once endoscopy and upper GI radiological evaluation show neither obstruction nor edema to justify the symptoms. However, it appears that non-mechanical postoperative nausea and vomiting after RYGBP cannot be successfully treated by current antiemetic drugs such as bromopride and ondansetron.

Mirtazapine is a noradrenergic and specific serotonergic antidepressant that has successfully been used as an antiemetic drug in the treatment of chemotherapy-induced nausea and vomiting and also in the treatment of hyperemesis gravidarum.4 We report two cases of severely obese patients who
underwent RYGBP, and experienced non-mechan- 
cal postoperative vomiting treated successfully with 
mirtazapine (Remeron Soltab™, Organon, Brazil).

Case Report

Case 1

A 26-year-old morbidly obese woman, BMI 41 
kg/m², underwent open RYGBP. She had a pleural 
effusion on the 5th postoperative day with total res-
olution on pleural drainage and antibiotics. She was 
discharged on the 20th postoperative day with a liq-
uid diet and no complaints. At 1 month after the 
operation, she had lost 20 kg (BMI 38 kg/m²). She 
was admitted to hospital with severe nausea and 
several episodes of vomiting per day. Endoscopy 
(Figure 1) and upper GI studies showed no obstruc-
tion. She was started on mirtazapine 30 mg qhs, 
with total resolution of the symptoms 2 days after 
commencement of the medication. The mirtazapine 
dose was reduced by 15 mg and discontinued 8 
months after its beginning.

Case 2

A 19-year-old morbidly obese woman, BMI 50 
kg/m², underwent open long-limb RYGBP. She had 
an uneventful recovery and was discharged 5 days 
after the operation. At the 40th postoperative day, 
she started vomiting after meals, with no success 
after using antiemetic drugs bromopride, dimenhy-
drinate and ondansetron. Her endoscopy and upper 
GI study showed no evidence of stenosis (Figure 2). 
She was given mirtazapine 30 mg qhs. Her symp-
toms improved 2 days after beginning the medica-
tion and totally disappeared in 2 weeks. The mir-
tazapine dose was reduced by 15 mg and discontin-
ued 2 months after its beginning.

Discussion

To our knowledge, this is the first report of the use 
of mirtazapine to control non-mechanical vomiting 
after gastric bypass in morbidly obese patients.

Vomiting after a RYGBP is not an uncommon 
symptom. Stenosis of the gastroenterostomy has been 
reported as the main cause of vomiting weeks or 
months after open or laparoscopic RYGBP. Ischemia 
of the stomach or jejunal limb has been suggested as 
the main cause of stenosis. Endoscopy and upper GI 
radiological contrast study are sufficient to confirm 
the diagnosis of the stenosis. The treatment is fre-
quently successfully achieved by balloon dilatation of 
the anastomosis.

We report two cases of RYGBP with postoperative 
vomiting. In both patients, a mechanical cause of the 
vomiting was ruled out. Symptoms could not be 
stopped by using IV antiemetic drugs such as bromo-
pride and ondansetron. We were only successful by 
using mirtazapine.

Mirtazapine, introduced by Organon in 1994, is a 
noradrenergic and selective serotonergic antidepres-
sant (NaSSA), the first of a new class of therapy. 
Mirtazapine blocks specific serotonergic receptor