

CASE REPORT

Case report: gastric sleeve surgery leads to new onset Crohn's disease

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Abstract

We report on the case of a 23-year-old male, who developed diffuse gastrointestinal Crohn's disease 2 months after gastric sleeve surgery. Prior to the surgery this patient had no previous symptoms of an inflammatory bowel disease (IBD). His only risk factor for IBD was a positive family history and he was otherwise well. As bariatric weight loss surgery becomes more widely practiced, there have been multiple sources indicating a possible causal link between bariatric surgery and new onset Crohn's disease.

INTRODUCTION

As bariatric surgery becomes more common place there is a larger cohort from which to gain insight into the potential complications and disease associations. A few recent studies have found that bariatric surgery may be associate with new onset Crohn's disease. This case study explores this potential causal relationship and how it may present in an otherwise young, healthy individual.

CASE STUDY

A 23-year-old male presented with inflammatory bowel disease (IBD) symptoms 2 months after gastric sleeve surgery. He initially had some post-operative nausea and vomiting, which was treated with Zofren, otherwise he had an uncomplicated recovery. The patient then presented to hospital 2 months later reporting diarrhea with mucous, nausea, vomiting and dehydration.

His inflammatory markers were raised, with an elevated fecal calprotectin, however a computerized tomography of abdomen and pelvis at the time showed no bowel wall thickening or evidence of colitis.

A Gastroscopy and Colonoscopy was performed the next day. The Gastroscopy showed some mild gastritis but was otherwise normal. Colonoscopy displayed erythematous, friable mucosa throughout the colon. Biopsies were taken of the stomach, duodenum and colon.

Biopsy results came back showing granulomatous gastritis and active chronic granulomatous colitis. Interestingly the histopathology of the partial stomach from the gastric sleeve 2 months prior did not show any granulomatous gastritis.

This patient was a non-smoker, had no comorbidities and was not on any regular medications. He has a positive family history, with his maternal grandma having CD.

The patient was reviewed by a Gastroenterologist who agreed that the picture fit the diagnosis of CD and was started on steroids, to which he responded well. The patient has now been transitioned to thiopurine therapy and continues to have good symptom control. He is continuing to lose weight and is happy with his results from the gastric sleeve surgery.

DISCUSSION

As bariatric surgery becomes more common practice, there is a greater cohort of patients from which to obtain significant information regarding the potential complications and disease association. IBD was once a deterrent to performing bariatric surgery, however recent evidence has shown that bariatric surgery in IBD patients has similar outcomes to patients without IBD. A meta-analysis on the safety of bariatric surgery in IBD patients published in *Clinical Obesity*, concluded that it is relatively safe in patients with IBD and should be pursued to reduce the comorbidities associated with obesity [1]. There have been a few studies looking into the relationship of Obesity and IBD. The evidence is conflicting. A meta-analysis performed this year showed that obesity may be protective against IBD, more so Ulcerative Colitis. Interestingly Obesity was not found to be protective against CD [3]. Furthermore, a recent population based prospective cohort study performed in Denmark showed a significant association between bariatric surgery and the new onset of CD [4]. It could be hypothesized that the

Received: January 7, 2022. Accepted: February 8, 2022

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weight loss and not the surgery itself, triggers the new onset CD in some patients. However, other studies have shown a relationship between obesity and a higher risk of developing CD [2].

The relationship between Bariatric surgery and IBD is a field that warrants further research to establish if there is a potential causal link. Most studies look at bariatric surgery as a whole and do not differentiate between the different types of operation, when investigating the relationship with new onset IBD. It would be interesting to further evaluate what triggers this new onset IBD to better understand the pathophysiology of this complicated disease.

CONSENT

Written informed consent was obtained from the patient for publication of this case report and accompanying

images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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