Unexpected Histopathological Findings after Sleeve Gastrectomy

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INTRODUCTION
Laparoscopic sleeve gastrectomy (LSG) represents one of the most commonly performed bariatric procedures and, in contrast to the Roux-en-Y gastric bypass, produces a specimen for pathologic examination. While few heterogeneous studies have looked at the histopathological findings of these specimens, this study aims to describe these unexpected findings in order to better define pre-operative management of patients undergoing LSG.

METHODS
All LSG cases at an academic centre in Toronto, Ontario between 2010 and 2017 were reviewed. All specimens underwent histopathological assessment, while those with findings suspicious for neoplasia or *H. pylori* underwent additional immunohistochemical staining. Baseline patient characteristics and surgical outcomes were obtained from our internal database.

RESULTS
A total of 222 patients were identified of which 22.5% underwent pre-operative endoscopy. The most common histopathological diagnosis was no abnormal findings (50.9%) followed by gastritis (25.7%). Abnormal findings warranting a change in post-operative management or follow-up were discovered in 8.6% of specimens and included *H. pylori*, intestinal metaplasia, malignancy and atrophic gastritis, while only 4.7% had not undergone pre-operative endoscopy and had truly unexpected findings. No significant association was found between abnormal findings and age, sex or baseline BMI.

CONCLUSIONS
Although a majority of patients had a gastric specimen within normal limits, 8.6% had findings requiring a change in post-operative management. This rate drops to 4.7% if patients whose diagnoses were known pre-operatively are excluded. Considering this, further research is needed to better define the role of pre-operative endoscopy to potentially reduce the number of unexpected findings following LSG.