

CASE REPORT

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Laparotomic removal of large gastric trichobezoar in a 14-year-old patient

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ABSTRACT

A 14-year-old female presented with abdominal pain and intermittent vomiting. An upper gastrointestinal (GI) study showed a large trichobezoar extending to the duodenum, causing duodenal obstruction. Upper endoscopy was initially attempted, but the bezoar could not be removed without potential disruption of the esophagus. Surgical removal was conducted via exploratory laparotomy with gastrostomy, and the patient was discharged five days post-op for outpatient follow-up. Gastric trichobezoar occurs commonly in adolescent patients and, in cases of large and far-extending masses, often need removal with laparotomy. Outpatient psychiatric follow-up is encouraged to prevent relapse.

Keywords: Laparotomy, Rapunzel syndrome, Trichobezoar, Trichotillomania

How to cite this article

Eing K, Banerjee S, Kumar R. Laparotomic removal of large gastric trichobezoar in a 14-year-old patient. J Case Rep Images Pediatr 2021;3:100011Z19KE2021.

Article ID: 100011Z19KE2021

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Received: 30 August 2020

Accepted: 27 October 2020

Published: 27 February 2021

doi: 10.5348/100011Z19KE2021CR

INTRODUCTION

A trichobezoar is mass trapped in the gastrointestinal (GI) system formed from the ingestion of hair. It is a rare condition typically found in young females with concurrent psychiatric disorders [1]. Initially, the mass is asymptomatic; however, human hair cannot be digested due to its smooth surface and will eventually accumulate between the stomach's mucosal folds [2]. Most trichobezoars are contained within the stomach. In some cases, known as Rapunzel syndrome, the trichobezoar can extend past the duodenum and cause intestinal obstruction. Small trichobezoars can be removed with fragmentation via endoscopy. Larger trichobezoars are more difficult to completely remove endoscopically and are more often removed surgically. Here, we report the case of a 14-year-old female diagnosed with a large trichobezoar.

CASE REPORT

In this article, we present the case of a 14-year-old female with past medical history of *oppositional defiant disorder* who presented with a 6-week-history of abdominal pain, decreased appetite, and intermittent vomiting. Upper GI study with small bowel follow through was performed and showed large gastric filling defect consistent with bezoar that extended into duodenum, causing duodenal obstruction. Pediatric surgery was consulted to remove bezoar. Upper endoscopy was attempted initially, which showed the bezoar. Several attempts were made to remove it piece by piece; however, with traction on the midpoint, it became evident that it would not pass the gastroesophageal (GE) junction without potentially disrupting the esophagus. The procedure was converted to exploratory laparotomy with gastrostomy. The bezoar and the long duodenal component were removed through the gastrostomy. Gross pathology of specimen (Figure 1) appeared as a well-circumscribed portion of



Figure 1: Gastric trichobezoar.

hair measuring 7.5 × 6.0 × 2.8 cm. Loosely attached was a portion of hair-bearing material measuring 8.0 × 6.5 × 1.5 cm. The patient recovered well after surgery, diet was gradually increased, and abdominal pain improved. She was discharged five days post-op for regular outpatient follow-up with pediatric surgery, pediatric gastroenterology, and counseling services.

DISCUSSION

Gastric trichobezoar formation occurs primarily in adolescent patients with an irresistible urge to pull hair from the scalp (trichotillomania) combined with a desire to ingest hair (trichophagia). This hair becomes matted once swallowed and assumes the shape of the digestive tract. Bezoars can extend anywhere from the esophagus to the ileocecal junction and have presentations ranging from asymptomatic masses to emergent obstruction and perforations [1]. Endoscopic removal of the bezoar may be feasible in smaller masses; however, there is increased risk of incomplete removal as the tail of the bezoar extends further into the digestive tract. Furthermore, removal of the trichobezoar fragments requires repeated introduction of the endoscope, which carries the risk of esophageal ulceration and perforation [2]. Laparotomy is a viable treatment option for large trichobezoars. In addition to surgical removal, psychiatric counseling in these patients is necessary to prevent relapse [2].

CONCLUSION

Gastric trichobezoars are rare and most often occur in young females. They are typically contained in the stomach but can extend into the small intestine. Ideally, small trichobezoars are diagnosed and removed endoscopically. With larger trichobezoars, the risk of incomplete removal and possible esophageal disruption makes surgical removal a more feasible option. Psychiatric consultation should be initiated following removal to prevent relapse.

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Acknowledgments

The contribution of the patient whose clinical information is used in the article is acknowledged.

Author Contributions

Katelin Eing – Design of the work, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Sanjoy Banerjee – Interpretation of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Rakesh Kumar – Conception of the work, Acquisition of data, Analysis of data, Interpretation of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Guarantor of Submission

The corresponding author is the guarantor of submission.

Source of Support

None.

Consent Statement

Written informed consent was obtained from the patient for publication of this article.

Conflict of Interest

Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

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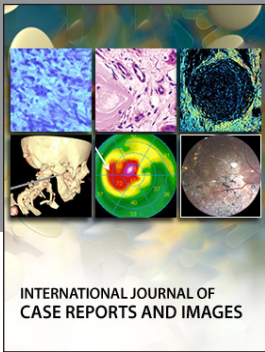
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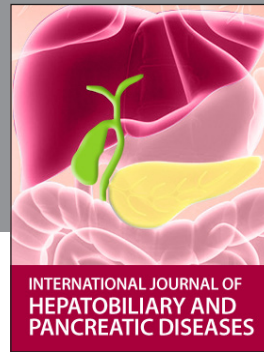
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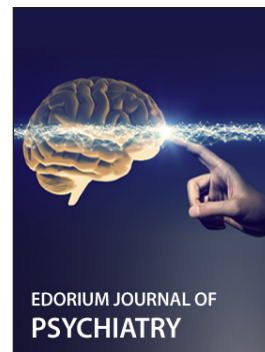
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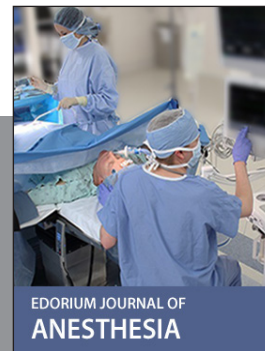
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