

Abstract for Saint Christopher's Hospital for Children Research Day 2024  
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Title: Case Report of the Late Identification of a Duodenal Web in a 14 Year Old Male with Trisomy 21

#### Introduction:

A duodenal web is a rare congenital anomaly that results from incomplete recannulization of the duodenal lumen during gestation. It is most commonly presents with partial or complete bowel obstruction during infancy, however variability in severity of presentation can lead to delayed diagnosis. Individuals with Trisomy 21 are at increased risk of being affected by congenital failures of duodenal recannulization such as duodenal atresia and duodenal webs.

#### Case Description:

A 14 year old male with complex past medical history including Trisomy 21 and Tetralogy of Fallot with pulmonary atresia s/p repair was admitted for weight loss and feeding intolerance. The patient had poor weight gain for the past 1 year with multiple admissionis for failure to thrive. The patient's weight loss was initially attributed to lack of nutrition optimization with insufficient caloric intake. In order to rule out underlying Inflammatory Bowel Disease, endoscopy was performed. EGD revealed stenosis in the first part of the duodenam, esophagitis, and granularity, friability, and erythema of the stomach and duodenal bulb. Fluoroscopic upper GI study revealed stenosis of the proximal duodenam at the superior duodenal flexure estimated to be 1.5-2 cm in length with a caliber of 1-2 mm. Biopsies obtained during EGD were negative for malignant processes or *H. Pylori* infection, excluding acquired causes of duodenal stenosis. The patient underwent diagnostic laparoscopy which revealed duodenal obstruction just past the pylorus with an inflammatory mass. Laparoscopic gastrojejunostomy was performed. The patient was provided total parenteral nutrition post operatively, but was able to tolerate a regular diet by the time of discharge. The patient had improved feeding intolerance and improved weight gain on follow up visits with pediatric gastroenterology.

#### Discussion:

This patient's medical course was complicated by the unusually late diagnosis of a congenital duodenal web. Several similar cases of delayed diagnosis of congenital duodenal webs have been reported, predominantly in younger school aged children. Due to the possibility of a subacute or chronic presentation of a perforated congenital duodenal web, it is important to maintain this diagnosis on the differential when evaluating a patient with recurrent feeding intolerance or failure to thrive. More broadly, this case points to the importance of considering congenital abnormality during the evaluation of a pediatric patient of any age, especially those at higher risk of certain congenital abnormalities such as an individual with Trisomy 21.

#### References:

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