

# Case Report

## An Interesting Case of Postprandial Epigastric Pain and Fullness

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### Abstract

The frequency of duodenal diverticula is second after the colonic diverticula in the gastrointestinal tract, but the presentation of Intraluminal Duodenal Diverticulum is very rare in Asian population. Most such diverticula are asymptomatic and located in the second part of duodenum. We report a female patient who presented with symptoms of postprandial epigastric pain and fullness since 3 years. Diagnosis was established by uppergastrointestinal radiography. She was advised few diet modifications and was put on prokinetics. Follow up after 3 months showed a significant improvement from her symptoms. This case report highlights the importance of non-surgical approach in uncomplicated Duodenal Diverticula where Diverticulectomy may not be needed.

**Key Words:** Intraluminal Duodenal Diverticula

### Introduction

Intraluminal Duodenal Diverticula also called as wind-sock diverticula, was first reported by Chomell in 1710 and in 1913 the first radiological demonstration was done by JT Case<sup>1</sup>. The Duodenal Diverticulum is a single saccular structure which originates in the second portion of duodenum which are usually asymptomatic in majority of the cases. Complications are rare but with significant morbidity<sup>2</sup>.

Definitive treatment has historically been surgery<sup>1,2</sup>, but we report a case of Intraluminal Duodenal Diverticulum who was evaluated for intermittent postprandial epigastric pain and fullness and who responded to oral medication with simple life style modifications.

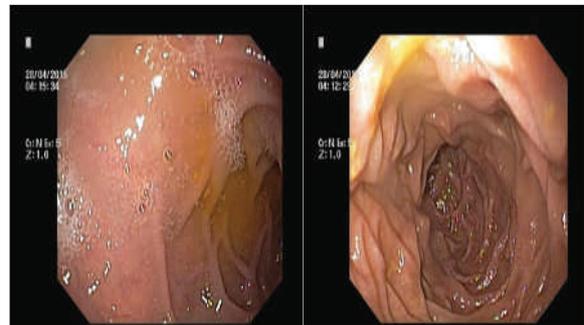
### Case Report

A 47 year old female presented to us in Medical Gastroenterology OPD with complaints of postprandial epigastric discomfort, nausea, vomiting, loss of appetite. There was no history of significant weight-loss. No abdominal surgeries in the past. There was no history of melena, hematemesis or hematochezia. She was not under any chronic medication except for routine use of PPI. Patient was evaluated at different centers in the past 2 years and was diagnosed of having GERD (Fig1,2,3).

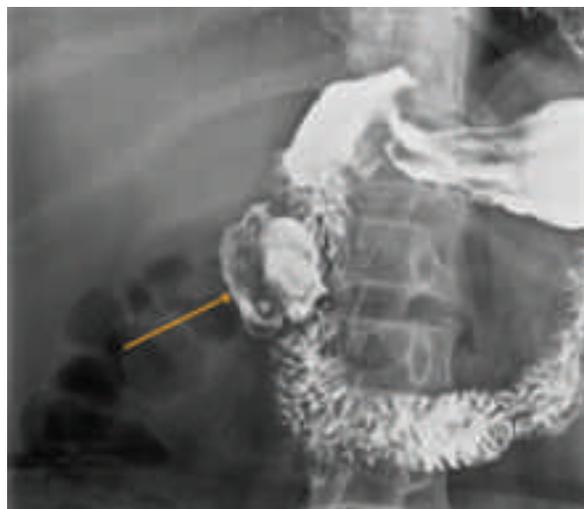
On examination patient had no clinical evidence for pallor, icterus.

Abdominal examination: was normal.

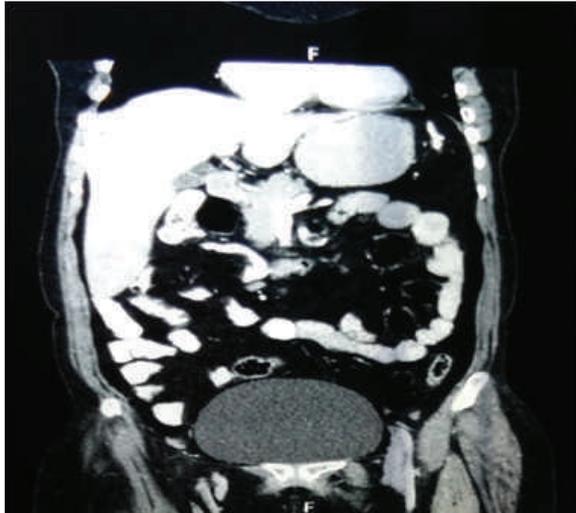
The clinical evaluation of cardiopulmonary system were normal.



**Fig 1** - UGI scopy showing first and second part of duodenum, Second part showing Yellow colored sludge like material.



**Fig 2** - Barium Study showing intraluminal diverticulum arising from the second part of duodenum.



**Fig 3 - CT ABDOMEN :** Showing a well defined outpouching seen arising from the medial wall of second part duodenum (At the level of ampulla of Vater)

## Discussion

Duodenal diverticula is a congenital herniations of the mucosa and submucosa through the muscular layer. An intraluminal mucosal diaphragm or web is caused by failure of normal recanalization of the duodenum by 7th week of human embryo<sup>3</sup>. They are usually asymptomatic or may present with nonspecific symptoms like postprandial abdominal pain, dyspeptic symptoms or pain abdomen<sup>4,5</sup>; severe complications like diverticulitis, bleeding, perforation may rarely occur<sup>6,7</sup>. When complications arise with duodenal diverticulum, surgery is the best option<sup>6,7,8</sup>. Diverticula of duodenum are classified as primary and secondary. False or secondary diverticula results from chronic duodenal ulceration, better known as prestenotic diverticulum where as primary are true diverticula<sup>5</sup>. During early fetal development, the duodenal lumen is occluded by the proliferating epithelial cells and later recanalized. An incomplete or fenestrated diaphragm may not produce obstructive symptoms in childhood, but over time peristaltic stretching may transform the diaphragm into an intraluminal diverticulum. The diverticulum forms from a congenital duodenal web or diaphragm that gradually elongates intraluminally over time as a result of mechanical factors such as forward pressure by food and duodenal peristalsis<sup>9</sup>. The diagnosis is usually made by an upper gastrointestinal contrast study and a gastroduodenoscopy.

Elective surgical treatment of asymptomatic diverticulum is unnecessary. Diverticulectomy done for vague pain and abdominal discomfort is unnecessary<sup>8,10</sup> and only a few may benefit from it<sup>10</sup>.

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