

**HOURLASS STOMACH- A CADEVARIC STUDY****Dr. Madhuri Achary<sup>1\*</sup> and Dr. Anju Thomas<sup>2</sup>**

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**ABSTRACT**

The stomach is a muscular bag forming the widest and most distensible part of the digestive tube. Above it connected to the lower end of oesophagus and below to the duodenum. Its shape and position are modified by changes within itself and the surrounding viscera, and no one form, or position is typical. During the dissection of male cadaver, in the dissection hall of Shareera Rachana department, an hourglass stomach with 2 pouches separates by a deep constriction between greater and lesser curvature was observed and the same is emphasized in this article.

**KEYWORDS:** Stomach, hourglass stomach.

**INTRODUCTION**

The stomach is a muscular bag forming the widest and most distensible part of the digestive tube.<sup>[1]</sup> In living, clinically stomach presents 3 types: Sthenic type- longer limb of J is slightly oblique. Hypersthenic type or steer horn stomach- these people are prone to suffer from duodenum ulcer. Hyposthenic type- J is mostly vertical and is more prone for gastric ulcer.<sup>[2]</sup> Among the variant shapes of the stomach, the hourglass stomach is one of the well-known shapes.

Hour glass contracture occurs exclusively in women, is due to cicatricial contracture of lesser curve ulcer. There are two compartments in this stomach. Symptoms are loss of periodicity, persistent pain, vomiting, loss of appetite and weight.<sup>[3]</sup>

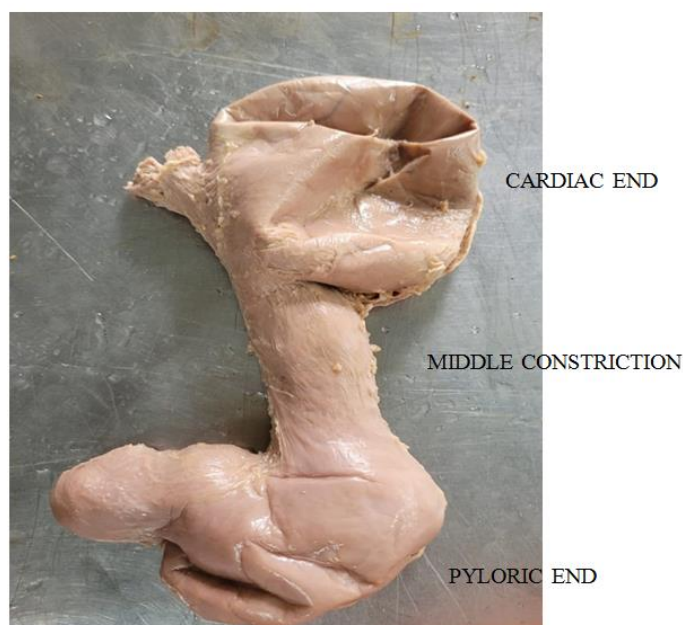
The Italian anatomist Morgagni was the first to describe the hourglass stomach in the eighteenth century. The condition is typically caused by the stomach wall contracting in reaction to a gastric ulcer.<sup>[4]</sup>

One of the variants of the hourglass stomach is the "cascade" form. The stomach is partially split into two or more parts in both situations. Food often enters the top chamber of the cascade stomach first, and it only enters the lower chamber once the upper chamber is filled.<sup>[5]</sup>

Hourglass deformity of the stomach is usually secondary to an intrinsic ulcerative process usually benign, but sometimes secondary to neoplasm or to syphilis.<sup>[6]</sup>

### CASE REPORT

During routine PG dissection on abdomen of a male cadaver, an atypical hourglass stomach was observed. The stomach was 23cm long and had 2 prominent pouches connected to each other by a narrow canal. The 2 pouches formed by a deep constriction in the body part between fundus and pylorus part. Upper pouch is larger formed by the fundus. Measured about 10cm x 8cm. Lower part is smaller formed by pyloric part. Measured about 7cm x 6cm. Middle constriction formed in the body of the stomach. Measured about 6cm x 3cm. Upper end of the stomach opened into oesophagus and lower end to duodenum. The stomach cut opened through the greater curvature. Longitudinal rugae are observed along the lesser curvature, more in the area of constriction. Less in the greater curvature of two pouches.





## DISCUSSION

On observation, no external adhesion or extra growth was found. No changes in the external surface of the stomach. Internally, no gastric ulcer changes or scars of healing were found in the naked eye examination. There were no signs of perforation of the gastric mucosa.

D A Floate, J M Duggan observed a series of 19 patients with an hourglass stomach. The hypothesis is proposed that an hourglass stomach is produced by gross scarring around a severe benign chronic gastric ulcer under the influence of prolonged exposure to aspirin.<sup>[7]</sup>

It may be either congenital or acquired.

An acquired hour-glass stomach may be due to four causes. 1) Contraction of a chronic ulcer situated in the body of the stomach. 2) Adhesions as a result of a perforating ulcer which holds the stomach fast, either to the anterior abdominal wall or to the pancreas in behind. 3) To carcinomatous degeneration. 4) To perigastric adhesions which compress the stomach at or near its center.

The types of hour-glass stomachs are many, depending entirely upon where the obstruction is situated. Six distinct types, (1) Obstruction near cardiac end; (2) cardiac pouch concealed by adhesion (3) growth in body of stomach; (4) two pouches connected by a narrow tube (5) cardiac pouch largely dilated: (6) lesser curvature pulled down toward the greater.

Symptoms: These patients always give a history of chronic ulcers of long duration, varying from many months to several years. They complain of pain in the region of the stomach

immediately after taking food, and with it there is nausea and vomiting. The inability of the stomach to empty itself interferes greatly with the nutrition of the patient and causes marked nervous symptoms as well as gastric symptoms. The patients become anaemic, lose flesh and strength, and are more or less chronic invalids. Unless surgical interference is resorted to, these symptoms grow gradually worse, and those patients are very apt to die. Either from exhaustion due to a lack of nutrition or from some inter-current disease that may set in.<sup>[8]</sup>

## CONCLUSION

The case being reported here is an atypical type of hourglass stomach where middle constriction in the body of the stomach divides it into 2 cavities. It looks congenital, as the stomach specimen does not show any visible evidence of ulcer or growth at the constriction under naked eye examination. It was not caused by any abnormal peritoneal band or adhesions, since there were no abnormal peritoneal bands attached to the stomach. So by examination, it is considered as a congenital hourglass stomach. For further remark histopathological examination can be undertaken.

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