

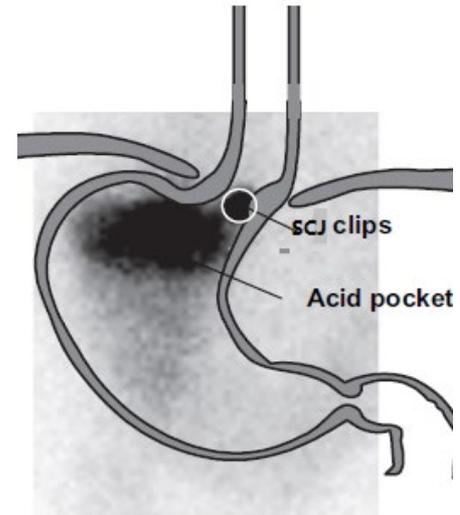
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# **Postprandial proximal gastric acid pocket and its association with gastroesophageal acid reflux in patients with short-segment Barrett's esophagus**

**Key words:** Short-segment Barrett's esophagus; Postprandial proximal gastric acid pocket; Gastroesophageal acid reflux

# ***Research Summary***

**This review mainly focused on determining the characteristics of postprandial proximal gastric acid pocket (PPGAP) and its association with gastroesophageal acid reflux in patients with Barrett's esophagus (BE).**



# Research Summary

**Table 1. Comparison of indicators for postprandial proximal gastric acid pocket (PPGAP) between patients with short segment Barrett's esophagus (BE) and healthy individuals**

	Time of PPGAP appearance (min)	Length of PPGAP (cm)	Lowest pH of PPGAP	Mean pH of PPGAP
Patients with short segment BE (n = 15)	14 (13, 19)	5 (3, 7)*	1.1 (0.8, 1.5)*	1.8 (1.6, 2.2)
Healthy individuals (n = 15)	19 (16, 21)	2 (1, 2)	1.6 (1.4, 1.9)	2.1 (1.7, 2.3)

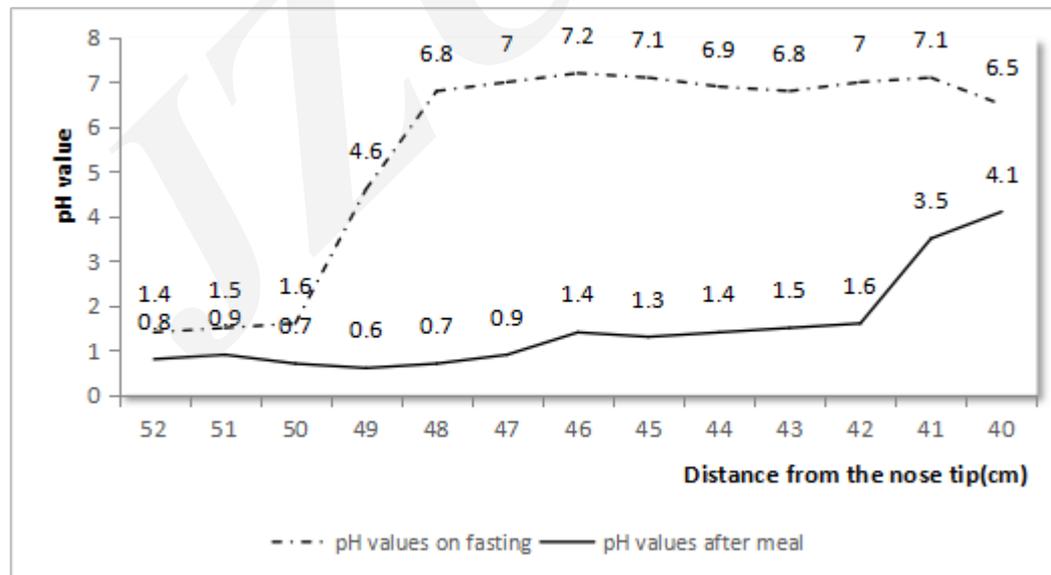
Data are expressed as the median and percentiles (P25, P75).

\* indicates  $P < 0.05$ .

The length of PPGAP was significantly longer and the lowest pH was significantly lower in patients with short-segment BE than in healthy individuals [5(3, 5) vs. 2(1, 2) cm, 1.1(0.8, 1.5) vs. 1.6(1.4, 1.9), respectively].

# Research Summary

PPGAP is commonly seen, PPGAP started to appear proximally from the gastroesophageal pH step-up point to the esophageal lumen. The acidity of PPGAP was higher in the distal segment than in the proximal segment.



# ***Research Summary***

**In short-segment BE patients, there were significant correlations between the acidity and the appearance time and length of PPGAP. The length and acidity of PPGAP were positively associated with gastroesophageal acid reflux episodes. The acidity of PPGAP was associated with the DeMeester scores, the GerdQ scores and the fasting intragastric pH.**

# ***Innovation points***

**This study showed that PPGAP is commonly seen, the length and acidity of PPGAP are associated with gastroesophageal acid reflux, the DeMeester score and the GerdQ score in patients with short-segment BE.**