

Percutaneous endoscopic gastrostomy with the aid of a colonoscope to avoid gastrocolic fistula formation



Figure 1 An abdominal radiograph showing the interposed sigmoid colon between the stomach and the abdominal wall.

Penetration of the colon and the subsequent development of a gastrocolic fistula is a recognized complication of percutaneous endoscopic gastrostomy (PEG) [1]. Normally the transverse colon is the only mobile portion of the colon lying anterior to the stomach, and so technical aspects aimed at minimizing such complications are mainly focused on the displacement of transverse colon that has become interposed between the stomach

and the abdominal wall [2–4]. However, other segments of colon, such as sigmoid colon, may also become interposed between the stomach and the abdominal wall because of a lax mesentery and/or previous abdominal surgery.

An 84-year-old man was hospitalized with a 2-month history of swallowing difficulties following cerebral infarction, and it was decided that the patient required a feeding gastrostomy. The patient had previously undergone a laparotomy for volvulus. It is not feasible to routinely carry out plain abdominal radiography before PEG. However, we usually perform PEG with fluoroscopy to avoid transfixing the transverse colon [5], and we were thus able to detect at the start of the procedure that the colon was interposed between the stomach and the abdominal wall. PEG was therefore deferred because of this complication. Abdominal radiography (● **Figure 1**) and computed tomography (● **Figure 2**) confirmed sigmoid colonic interposition.

We decided to use a colonoscope to facilitate the displacement of the sigmoid colon in the next procedure. A colonoscope (CF-200I; Olympus, Tokyo, Japan) was inserted into the sigmoid colon allowing straightening of the loop of bowel and then gas was evacuated via the colonoscope. A gastroscope (XQ-230; Olympus)



Figure 2 Computed tomography image showing the interposed sigmoid colon between the stomach and the abdominal wall.

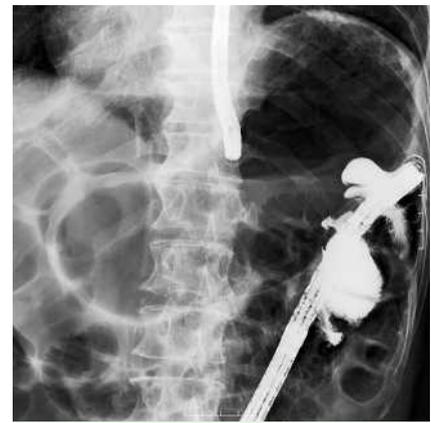


Figure 3 An abdominal radiograph showing full insufflation of air into the stomach. The anterior gastric wall comes to lie in contact with the abdominal wall. A water-soluble contrast medium (meglumine sodium amidotrizoate) injected through a colonoscope can be seen. Note: a colonoscope and a gastroscope are inserted simultaneously.

was subsequently introduced into the stomach, which was then fully insufflated. As a result of these maneuvers, the anterior gastric wall came to lie in contact with the abdominal wall (● **Figure 3**), and PEG was performed. We believe that this procedure is useful for avoiding gastrocolic fistula formation in such exceptional cases.

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K. Tominaga, Y. Saigusa, S. Ito, K. Hirahata, Y. Nemoto, I. Maetani
Division of Gastroenterology, Department of Internal Medicine, Toho University Ohashi Medical Center, Tokyo, Japan

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Corresponding author

K. Tominaga, MD
Division of Gastroenterology
Department of Internal Medicine
Toho University Ohashi Medical Center
2-17-6 Ohashi
Meguro-ku
Tokyo 153-8515
Japan
Fax: +81-3-3468-1269
ktominaga@oha.toho-u.ac.jp