Recently, endoscopic ultrasound (EUS)-
guided gallbladder drainage has been re-
ported in patients who are unsuitable
candidates for cholecystectomy [1, 2].
However, this procedure can also lead to
several complications, including stent
migration. Novel methods or new devices
are required to prevent these complica-
tions.

We report here the successful treatment
of a patient with acute cholecystitis and
obstructive jaundice complicated by ad-
vanced bile duct cancer, using EUS-guided
hepaticogastrostomy and a novel tech-
nique of EUS-guided gallbladder drainage.

A 71-year-old man was admitted to our
hospital with obstructive jaundice and
acute cholecystitis. Based on further eval-
uations, he was diagnosed histologically
with unresectable bile duct cancer. Fol-
lowing failed endoscopic retrograde chol-
angiography, we performed EUS-guided
hepaticogastrostomy (Fig. 1). The acute
cholecystitis was treated by initial percu-
taneous gallbladder drainage (PTGBD),
following which we successfully treated
the condition. However, the acute chole-
cystitis recurred after removal of the
PTGBD tube. Hence, we decided to per-
formed EUS-guided gallbladder drainage.

The gallbladder was punctured using a
19-G needle (SonoTip Pro Control 19G;
Medi-Globe GmbH, Rosenheim, Germa-
ny) inserted via the duodenal bulb. Bile
juice was aspirated and a small amount
of contrast medium was injected. Next, a
0.025-inch guidewire (VisiGlide; Olympus
Medical Systems, Tokyo, Japan) was
inserted via the duodenal bulb. With a self-expandable metal
stent (SEMS) inserted into the gallbladder
(10× 60mm Wallstent; Boston Scientific
Japan), the endoscope was carefully
advanced and was released after passing
the duodenal wall (Fig. 3). Finally, to

Video 1

Endoscopic ultrasound-guided hepaticogas-
 trostomy using a fully covered metallic stent in
a 71-year-old man with obstructive jaundice and
acute cholecystitis. The gallbladder was punc-
tured and contrast medium injected. Next, the
guidewire was inserted and the fistula dilated
using a balloon catheter. A fully covered metallic
stent was placed and, finally, a pigtail plastic
stent was placed into the metallic stent.
avoid stent migration, we inserted a double pigtail plastic stent (7Fr, 10cm; Cook Medical, Bloomington, Indiana, USA) into the metallic stent (Fig. 4). Acute cholecystitis was not observed during 6 months after this procedure.

A novel metallic stent with flanges to prevent stent migration is now available for EUS-guided gallbladder drainage [3, 4], and this stent might be much better at preventing stent migration. However, if this flanged metallic stent is not used, we believe that a pigtail plastic stent should be added into the straight metallic stent, as in the present case, to avoid stent migration.

References

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