A three-color marking method to prevent stent migration in endoscopic ultrasound-guided drainage for peripancreatic fluid collections

Endoscopic ultrasound (EUS)-guided drainage using a plastic stent for peri-pancreatic fluid collections has been widely performed. It is an established procedure with a high success rate [1]. However, it is often difficult to see how far the stent has been inserted during EUS-guided drainage. A rare but serious complication of stent migration has been reported [2]. We developed a novel three-color-marking method to prevent stent migration.

A man in his 40s with severe acute pancreatitis developed a 64-mm infectious walled-off necrosis (WON) in the pancreas tail (Fig. 1). We decided to perform EUS-guided internal and external drainage. First, an echoendoscope (GF-UCT260; Olympus Medical Systems, Tokyo, Japan) was inserted and the WON was visualized transgastrically. Then, a puncture was performed using a 19G needle (EZshot3; Olympus Medical Systems), and a 0.025-inch guidewire (Visiglide2; Olympus Medical Systems) was manipulated into the WON. After dilation using a 4-mm balloon (RENBiliary balloon catheter; KANEKA, Osaka, Japan), a double-lumen catheter (uneven double-lumen cannula; PIOLAX, Tokyo, Japan) was inserted and a second guidewire was placed.

A 7 Fr 7-cm double pigtail stent (Through and Pass; Gadelius, Tokyo, Japan) was chosen for internal drainage. A blue mark means “still safe, insert stent further” and a red mark means “stent center, form distal pigtail” was placed in the middle of the stent with a permanent marker. There was originally a black mark meaning “final point, deploy the stent” at the base of the proximal pigtail.

A 7 Fr 7-cm double-pigtail stent for internal drainage. The left side is the stent insertion direction. A blue mark meaning “still safe, insert stent further” was placed at the base of the distal pigtail. A red mark meaning “stent center, form distal pigtail” was placed in the middle of the stent with a permanent marker. There was originally a black mark meaning “final point, deploy the stent” at the base of the proximal pigtail.

Video 1 Three-color marking method to prevent stent migration in endoscopic ultrasound-guided draining for peripancreatic fluid collections.

Endoscopic ultrasound (EUS)-guided drainage using a plastic stent for peri-pancreatic fluid collections has been widely performed. It is an established procedure with a high success rate [1]. However, it is often difficult to see how far the stent has been inserted during EUS-guided drainage. A rare but serious complication of stent migration has been reported [2]. We developed a novel three-color-marking method to prevent stent migration.

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Competing interests

The authors declare that they have no conflict of interest.
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References


Bibliography

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