

Surgical alternative anatomy: balloon-assistant enteroscopy

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Endoscopic treatment based on ERCP techniques for the patients with pancreato-biliary disorders were widely performing in the world. However, there are still difficulties in biliary access in several situations. The Asian-pacific consensus statements for difficult biliary access were made by expert pancreato-biliary endoscopists in Asian-Pacific region. In this lecture, we will explain the difficult biliary access in the patients with surgically altered anatomy from these consensus statements.

Endoscopic treatment of pancreato-biliary diseases in the patients with surgically altered anatomy was still difficult and challenging. Recently, we can access to the bile duct with device assisted endoscopies; double balloon, single balloon and spiral enteroscopy. These endoscopes were effective to approach to the papilla or anastomotic site and support the treatment procedure. There are some kinds of reconstruction: Billroth II, R-Y, bilio-enteric anastomosis and etc. For the patients with Billroth II, we could approach to the papilla with conventional forward- and side-viewing endoscope. Side-viewing endoscope was reported as easy to manipulate the cannulation procedure but showed higher incidence of perforation. Then we made statement 6; 'In patients with Billroth II anatomy, both side-viewing and conventional forward-viewing endoscopes may achieve comparable biliary access. The use of side-viewing endoscopes may be associated with a higher risk of perforation.' Device-assisted endoscopy was also useful and we put in this kinds of endoscope in the text.

Other major way of reconstruction was R-Y, and performing ERCP was still difficult, however, we can do with devise-assisted enteroscopy, but low success rate with conventional endoscopes. There were some case series to perform endotherapy with devise-assisted enteroscopy in R-Y cases, and the results were also feasible. Then, we made Statement 7; "In surgically altered anatomy, particularly Roux-en-Y anastomosis, device-assisted enteroscopy may facilitate access to the papilla or bilio-enteric anastomosis."

In my lecture, I will present about other statements about percutaneous ultrasonography- and EUS-guided biliary access. There are many kinds of endoscopic procedure to access to the bile duct, but sometimes, it was impossible. In these situation, still, we should perform percutaneous trans hepatic biliary access. Then, we made following Statement 11; "Percutaneous transhepatic access is a viable method of biliary intervention when endoscopic methods fail or are not appropriate."

The main problem of percutaneous procedure was reducing the patient's quality of life. Many patients want to live without any percutaneous drainage tube. Recently, some comparing

studies between percutaneous and EUS-guided biliary access were published. From these results, less complications and similar success rate were revealed. Then, we made Statement 12; “Percutaneous trans-hepatic and EUS-guided biliary access appear comparable in terms of efficacy, and may be appropriate in surgically-altered anatomy.”

We should confirm these statements and make good evidence in the near future.