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## Experience of Endoscopists in Endoscopic Retrograde Cholangiopancreatography in Surgically Altered Anatomy Patients

Chang-Hwan Park

Department of Internal Medicine, Chonnam National University Medical School, Gwangju, Korea

See “Experience of the Endoscopists Matters in Endoscopic Retrograde Cholangiopancreatography in Billroth II Gastrectomy Patients” by Erkan Caglar, Deniz Atasoy, Mukaddes Tozlu, et al., on page 82-89.

Endoscopic retrograde cholangiopancreatography (ERCP) is stimulating for endoscopists, including experts in different surgically altered anatomies (SAAs), since there are many complex variations in surgical techniques. The most common difficulty of ERCP may be in reaching the ampulla of Vater (AOV) or a hepaticojejunostomy site in SAAs. In patients with Billroth I anastomosis, a side-view duodenoscope is a very useful tool for effective intubation and therapeutic procedures in ERCP.<sup>1</sup> However, it is difficult to accomplish effective intubation with a side-view duodenoscope in patients with a radical total gastrectomy with Roux-en-Y anastomosis (RTG with REY) and a pylorus-preserving pancreaticoduodenectomy (PPPD). Recently, enteroscope-guided ERCP with a single-balloon enteroscope (SBE) and a double-balloon enteroscope (DBE) have been most commonly used to overcome this struggle in patients with RTG with REY and PPPD.<sup>2,3</sup> SBEs and DBEs have enough length and balloons to overcome long-limb reconstructions, angulations, and adhesion deformities in patients with RTG with REY and PPPD.

The Billroth II gastrectomy is one of the most common surgical techniques for the treatment of peptic ulcers and gas-

tric cancer.<sup>4</sup> Caglar et al.<sup>5</sup> reported that the mean procedure time of an expert endoscopist with a side-view duodenoscope (23.8 min) was significantly shorter than that of an inexperienced endoscopist (40.68 min,  $p < 0.001$ ) in patients with a Billroth II gastrectomy. They also reported that the rate of afferent loop perforation by the inexperienced endoscopist (6.25%) was higher than that of the expert endoscopist (0%,  $p = 0.053$ ). They concluded that inexperienced endoscopists should attempt using forward-viewing gastroscopes first and then start using duodenoscopes as they would have gained experience in ERCP for patients with an altered anatomy. However, Ki et al.<sup>6</sup> reported that the cap-assisted forward-viewing gastroscope was a time-saving tool in patients with a Billroth II gastrectomy since the mean time involved in reaching the AOV with this technique was very short (4.1 min), and effective selective cannulation could be achieved skillfully with a cap-fitted forward-viewing gastroscope in patients with a Billroth II gastrectomy after their practice increases. Both of these studies suggested that ERCP could be performed efficiently and safely in patients with a Billroth II gastrectomy with either a forward-view gastroscope or a side-view duodenoscope as an endoscopist's experience increases.

Although both the forward-view gastroscope and side-view duodenoscope for ERCP can be good options for a Billroth II gastrectomy, neither of them yield a high rate of successful ERCP in patients with RTG with REY or PPPD. Enteroscope-guided ERCP with an SBE and DBE should be considered in patients with RTG with REY and PPPD. Therefore, enteroscope-guided ERCP could be a good option in patients with a Billroth II gastrectomy if endoscopists fail to

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Correspondence: Chang-Hwan Park

Department of Internal Medicine, Chonnam National University Medical School, 160 Baekseo-ro, Dong-gu, Gwangju 61469, Korea

Tel: +82-62-220-6296, Fax: +82-62-228-1330, E-mail: p1052ccy@hanmail.net

ORCID: <https://orcid.org/0000-0002-2995-8779>

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reach the AOV with either a forward-view gastroscope or a side-view duodenoscope. Prior experiences with an SBE and DBE in patients with a Billroth II gastrectomy may be helpful to accomplish efficient ERCP in patients with RTG with REY and PPPD.

#### Conflicts of Interest

The author has no financial conflicts of interest.

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