Balloon Dilation of the Papilla Via a Forward-Viewing Endoscope: an Aid to Therapeutic Endoscopic Retrograde Cholangiopancreatography in Patients with Billroth-II Gastrectomy

Therapeutic endoscopic retrograde cholangiopancreatography (ERCP) in the presence of a Billroth II (B-II) partial gastrectomy is often difficult. We describe here a role for balloon dilation of the papilla in this context.

An 84-year-old man, who had previously undergone B-II gastrectomy, and had obstructive jaundice and common bile duct dilation on ultrasonography, was referred for ERCP. Having visualized the papilla and achieved selective cannulation of the common bile duct via a forward-viewing gastroscope (Olympus Q20), we showed the presence of a single, large, mobile stone. However, we could not cut the sphincter with a "B-II-type" 2.3-mm papillotome, despite apparently correct placement, within safe diathermy settings. We repeated cannulation via a gastroscope with a therapeutic channel (Olympus IT), passed a 10-mm biliary balloon catheter (Olbert catheter system, Meadox-Surgimed, Stenlose, Denmark) over a 0.035-inch guide wire, and dilated the biliary sphincter (Figure 1). This did not allow stone extraction; and we intended to dilate the sphincter further and perform mechanical lithotripsy, but could not, because of patient restlessness and planned a further procedure. After the initial procedure, he had abdominal pain (maximum serum amylase 1566 U/l), which settled without complication within 48 hours with conservative management. A repeat ERCP showed that the stone had passed spontaneously, and no further intervention was needed.

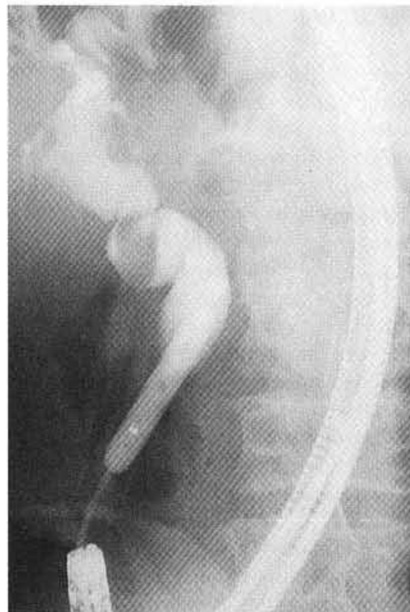

Figure 1: A balloon catheter being used to dilate the papilla via a forward-viewing gastroscope.

Balloon dilation of the papilla is a safe, effective technique that reduces the need for sphincterotomy in the management of bile duct stones (1,2). A theoretical advantage is that it may preserve long-term sphincter function in young patients. Despite the availability of dedicated sigmoid loop sphincterotomes, therapeutic ERCP in the B-II setting remains technically difficult and often hazardous, although success has been reported with stent-guided needle-knife sphincterotomy (3). Via the forward-viewing endoscope, balloon dilation (with mechanical lithotripsy if needed) offers obvious advantages over sphincterotomy in the B-II context, which we have not seen described before, and which deserve further study.

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