



Fusion™ OMNI

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Omni 21 for pancreatic and biliary access and therapy

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ERCP increasingly involves difficult pancreatic and biliary access, sphincterotomy, and stent placement in patients with small ducts or small papillae. Currently, successful access to and stenting of the pancreatic duct is often as important as biliary access, and is mandatory not only for specialized therapy, such as major or minor papilla pancreatic sphincterotomy, but also for risk reduction by placement of a pancreatic stent in high-risk cases. Examples of high risk cases include difficult bile duct access, biliary sphincterotomy for sphincter of Oddi dysfunction, and endoscopic ampullectomy.

Physician-controlled guidewire systems have greatly facilitated duct access in these difficult cases by placing the control of the wire in the hands of the endoscopist, which improves “feel” and allows minimal contrast injection. Most available physician-controlled guidewire accessory systems involve traditional larger caliber .035” guidewire and papillotomes, which work fine for most biliary obstructive applications such as bile duct stones and tumors, but can be simply too large for duct access in other situations. In some cases, though, smaller might be better; for example, sphincter of Oddi dysfunction, minor papillotomy for pancreas divisum, and diminutive major papilla for bile duct access.

Omni 21 represents a further evolution of the physician-controlled guidewire Fusion system, which has been downsized for these challenging situations. The papillotome is built around a 5.5 French catheter with a small rounded “dome” tip to minimize tissue dissection and intramural injection. This system accepts either a .021” hybrid-type guidewire, or an .018” Roadrunner wire. The .021” hybrid wire is useful for accessing the bile duct, especially using the guidewire cannulation technique. It is also small enough for accessing diminutive pancreatic ducts, and allows placement of very small caliber 3 or 4 French pancreatic stents, which are now preferred by most advanced endoscopists for prevention of post-ERCP pancreatitis. However, the .018” Roadrunner can be extremely valuable for tortuous pancreatic ducts, in which standard hybrid wires will often not advance around a sharp turn. In that case, use of a .018” Roadrunner wire may be optimal, as the very soft tip can flip into a knuckle which almost always stays in the main pancreatic duct. A particular advantage of this wire is that it is stable enough that only 1-2 cm of wire need be passed through the pancreatic sphincter in order to place a pancreatic stent.

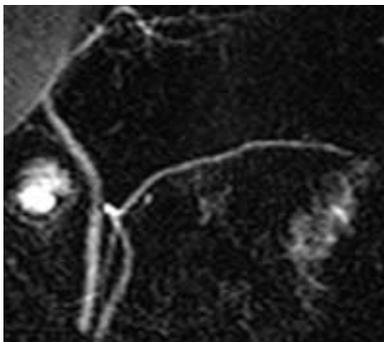


fig. 1



fig. 2



fig. 3

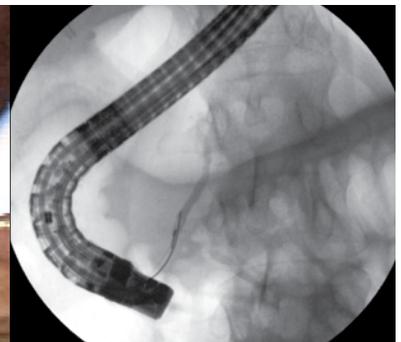


fig. 4

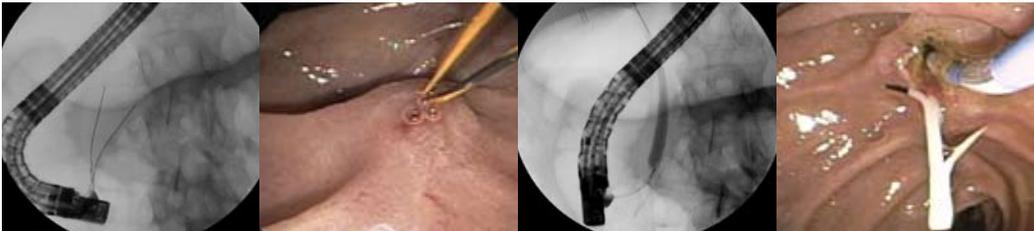


fig. 5

fig. 6

fig. 7

fig. 8

An advantage of the Omni 21 papillotome system is that after it has been inserted deeply into the duct and access has been gained, the guidewire can be changed without removing the papillotome from the duct. With most other physician-controlled wire systems, once the catheter or papillotome has entered the duct, it is not possible to change guidewires.

The first series of cases shows a typical application of the Omni-21 system. This is a young woman with recurrent right upper quadrant pain after cholecystectomy, with suspected sphincter of Oddi dysfunction. Secretin MRCP (fig 1) shows the typical very small caliber pancreatic and bile ducts. Sphincter of Oddi manometry is performed on pancreatic and biliary sphincters, both abnormal, in a relatively small papilla (fig 2). Omni 21 is preloaded with a .021" Tracer Metro Direct wire, with the wire stripped down so that the endoscopist controls the wire, and the pancreatic duct is accessed with minimal contrast (fig 3, 4). Then a second .021" Tracer wire is used to access the bile duct, and wires are maintained in both ducts (fig 5, 6). After a 2cm 4 French pancreatic stent is placed, biliary sphincterotomy is performed with the Omni 21 over the biliary wire (fig 7, 8), followed by needle-knife pancreatic sphincterotomy.

A particularly specialized use of physician-controlled small caliber guidewire/papillotome is for minor papillotomy. In the next case, a secretin MRCP had demonstrated pancreas divisum in a young woman with recurrent acute pancreatitis. Knowing in advance that this patient has divisum, a .021" Tracer wire is loaded into an Omni 21. Deep access into the minor papilla has been obtained using a physician-controlled guidewire (fig 9). The minor papilla is too stenotic for passage of even this small caliber device – therefore a needle knife is used to open up the minor papilla (fig 10), then the minor papillotomy extended with the Omni 21 (fig 11, 12), and a 4 French 2cm dorsal duct stent placed.

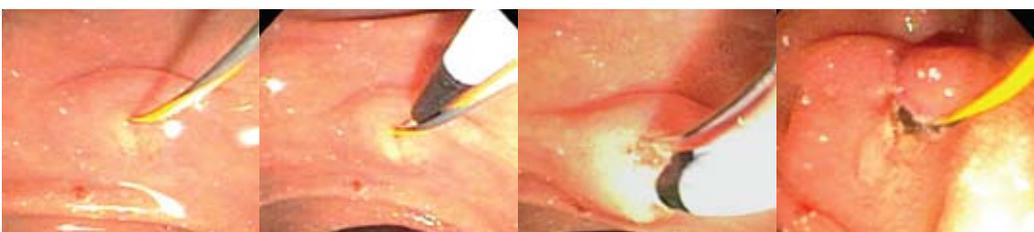


fig. 9

fig. 10

fig. 11

fig. 12