
Preface

Historically, nonsurgical reconstitution of the gut lumen was limited to the placement of rigid tubes in unresectable esophageal cancer. Initially fashioned out of boxwood or ivory, they were fixed into place by suture tied to a handlebar mustache or looped around the ears. Later they were fashioned out of a compound used by British dentist, Charles T. Stent (1807–1885), who initially developed it to create dental impressions. These conduits ultimately were called *stents*, a term that first appeared in the medical literature in 1952.

Rigid biliary prostheses (stents) were first placed surgically in the mid-1950s, and the first percutaneous placement was described by Molnar and Stockum approximately two decades later. A mere 5 years later, in 1979, Reynders-Fredrix and Soehendra described the first endoscopic placement of a 7 Fr plastic stent in the biliary tree, although it took almost another decade to routinely place small diameter prostheses into the pancreas and to produce endoscopes with a channel size large enough to place 10–11.5 Fr stents.

Self-expandable metal stents (SEMS), placed through a small diameter delivery system and which conform to the body's angulations, have allowed additional anatomical areas to be bypassed, decreased risks associated with placement of relatively large diameter plastic tubes through natural orifices, and have expanded our ability to palliate and effectively treat a wide variety of GI disorders, benign as well as malignant. Their development and application has been nothing short of revolutionary in the treatment of malignant, and to a lesser extent, noncancerous stenoses and acute and chronic GI tract leaks and perforations.

This is the context of our text, *Self-Expandable Stents in the Gastrointestinal Tract*. It brings together the world's experts in stent design and placement, including polyethylene (plastic) prostheses, and a variety of expandable stents (metal, silicone, and absorbable/polylactide). It also brings together the disciplines with the greatest experience in their use in the GI tract: therapeutic endoscopists and interventional radiologists.

This book covered the state of the art in a rapidly changing technology. Despite this evolution, however, and the fact that the FDA and its equivalent in other countries, defines ultimate product availability, basic physics and the design of expandable prostheses are crucial in defining current and future devices and their applications. Although defined historically and anatomically throughout the text, this distinction is artificial and is limited by anatomic access, either percutaneously or by the current use of natural orifices (mouth and anus). The

ability to deliver these prostheses by endoscopic ultrasound to straddle the inner and outer wall of the GI tract has revolutionized our ability to drain extraluminal fluid collections and perform anastomoses to include gastrojejunostomy, cholecystoduodenostomy, and other anastomoses from the stomach or duodenum into the intra- or extrahepatic biliary tree. Add the application of these stents through laparoscopic portals or transgastric or transcolonic neolumens in the setting of NOTES and one can begin to see the yet unrealized potential of this technology.

It is with enthusiasm and the humility of knowing, that by the time of this text's publication, that there will be continued evolution in SEMS technology and placement techniques, that the editors proffer *Self-Expandable Stents in the Gastrointestinal Tract*.

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