

Endoscopic therapy of extrahepatic biliary stricture

Arthur Kaffes

Royal Prince Alfred Hospital and Prince of Wales Hospital

Extrahepatic biliary strictures can be separated into either benign or malignant. In malignant disease the optimal approach has been for early surgery in operative candidates. Evolving strategies using neoadjuvant treatment or using metal stents as a bridge to surgery are now viable options. These strategies have been shown to be effective with metal stents and make for a logical approach as most patients will not progress to surgery and thus have optimal palliative drainage from the outset. In the palliative setting, ERCP and drainage is superior to surgery. Metal stents, covered or uncovered, provide superior drainage to plastic stents and should be preferred in most patients unless those who are at a terminal stage. There is controversy as to bare metal versus covered stents in malignant disease, with each having pros and cons. Fully covered stents have an increased change of migration and may increase the risk of acute cholecystitis however they have less in-growth and re-occlusion.

The most exciting paradigm shift is occurring in benign biliary strictures. There is now a large body of evidence in this area with good supporting evidence for fully covered metal stents in benign extra-hepatic strictures. Effectiveness in stricture resolution may be superior to multi plastic stenting strategies however recurrence rates seem similar. There has been significant technological stent advancement with several modifications that helps overcome the limitations of fully covered stents in benign biliary strictures especially the issue of stent migration. Traditional covered metal stents with the distal stent placement in the duodenum for retrieving are excellent for distal CBD strictures such as those in chronic pancreatitis however for anastomotic strictures of liver transplantation they perform poorly. In these cases newer intra-ductal stents have far less migration as an issue and are preferred in this situation. Some studies have suggested the axial force of the stent can also affect migration rates and may be an alternative to intra-ductal stents. Fully covered metal stents in benign biliary strictures are probably cost effective due to the reduced numbers of ERCP to manage them.