

the case in these patients if the guidewire is introduced endoscopically only. Once the iatrogenic stricture has been passed with endoscopic stent at rendezvous procedure, repeated procedures in the followup, such as dilations and stent exchanges are usually easily performed using endoscopic approach only. In the 1990s, there was a report in the literature on biliary rendezvous procedures performed because of malignant strictures.³ To my knowledge, my report² was the first one on rendezvous procedures performed because of iatrogenic bile duct injuries. I find that rendezvous procedure is of utmost clinical importance in the treatment of iatrogenic bile duct injuries in patients with unsuccessful stenting through endoscopic approach only, in particular in those with both stricture and leakage. Using this technique, many unnecessary, often hazardous early laparotomies to repair the lesion can be avoided.

Second, the removable self-expanding metallic stents (SEMS). Earlier, use of SEMSs for benign biliary strictures has been contraindicated or at least controversial, because these devices were considered irremovable. Recently, a simple and safe technique was described for the removal of one of the commonest SEMSs.⁴ The former makes possible the transient dilation of benign biliary strictures using removable SEMSs. Preliminary descriptive data on 55 patients treated with covered SEMS for benign biliary strictures were extremely encouraging with resolution of the stricture in 90% of patients, although most of the patients suffered from a stricture caused by chronic pancreatitis, often considered extremely resistant to endoscopic therapy.⁵ A removable SEMS is a particularly fascinating option for the treatment of iatrogenic bile duct strictures because SEMS enables to easily attain a large dilation diameter in a single endoscopy session, which makes the therapy more feasible for the patient. Prospective randomized trials are warranted to determine the role of SEMS in the treatment of iatrogenic bile duct strictures.

Last year, we reported the occurrence, treatment, and long-term results of iatrogenic bile duct injuries sustained during laparoscopic cholecystectomy in and around Turku University Central Hospital 1995 to 2002.⁶ In our study, the definitive treatment of 88% of the Amsterdam C strictures was endoscopic and percutaneous, but only 12% of the patients with Amsterdam C strictures had to undergo laparotomy.

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Reply

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The rendezvous procedure is a well-established approach to obtain biliary access when endoscopic cannulation fails. It is safe and allows internalization of stents placed percutaneously.

Covered metallic stents, which can be removed in short-term use, can be of benefit in those strictures, but has yet proved to be safe or superior to plastic stents. These stents can migrate and cause bile leak when removed. Most of our stenting was for substantial strictures that required 1 year of stenting. Metallic stents can be difficult to remove because of growth of granulation after that length of time.

Although rendezvous is an acceptable alternative approach in patients difficult to cannulate, metallic stenting in this setting can be considered a promising possibility, but not a new paradigm.

Isolation of Right Main and Sectional Portal Pedicles for Liver Resection Without Hepatotomy or Inflow Occlusion

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We read with great interest the article by Strasberg and colleagues¹ in the “Surgeon at Work” section of the February 2008 *Journal of the American College of Surgeons* issue, titled, “Isolation of right main and sectional portal pedicles

for liver resection without hepatotomy or inflow occlusion.”

Our interest in reading the technique description and its results in this article relates to the fact that we had the opportunity to propose and publish a similar approach to the Glissonian sheath 5 years ago in *Archives of Surgery*.² Another use for this approach is during bisegmentectomy 5-8 as published in 2005,³ during mesohepatectomy,⁴ and for left trisectionectomies.^{5,6} Application of our technique was also feasible in cirrhotic livers and our preliminary results were published in 2006.⁷

The description of techniques of right liver resections is of utmost importance because they represent a significant technical advance in performing anatomic resection of right liver sections or segments. The knowledge and use of Glissonian pedicles of liver segments is a logical approach in modern liver surgery.⁹ It precludes the tedious dissection of hilar structures, as we discussed in previous papers.²⁻⁹ Figure 1 in our previous article³ is an intraoperative photograph very similar to Figure 9 from their work.¹

The chief purpose of the article published by Strasberg and colleagues,¹ as stated by the authors in their introduction, was to review techniques used for sectional pedicle isolation. But their extensive review stopped at the year 2000. Indeed, from 2000 to the present, several reports have been published related to the same subject²⁻⁹ and some important ones^{10,11} published before 2000 should have been cited in their article.

The whole concept and use of Glissonian sheaths access for liver resections can also be applied for laparoscopic hepatectomies.¹²⁻¹⁴ Nevertheless, we think that this is a very important technique that should be used worldwide.

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Reply

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We thank Drs Machado, Martins, and Machado for their interest in our article, “Isolation of right main and right sectional portal pedicles for liver resection without hepatotomy or inflow occlusion” published in the *Journal* in February.¹ Indeed, one purpose of our article was to review pedicle isolation techniques, but another was to present a technique that used neither hepatotomy nor inflow occlusion. It was not our purpose to review all papers describing use of pedicle isolation, but to describe the main conceptual advances in doing so. We believe that the techniques described in the papers cited in their letter^{2,3} are conceptually very similar to those described by Launois and Jamieson.^{4,5} Hepatomies were used, and the position and use of the hepatomies are not readily distinguishable to us from those described by Launois and Jamieson in their two methods of pedicle isolation.^{4,5}

Our method does not use hepatomies. The first author to describe pedicle isolation without hepatotomy was Batignani,⁶ whose method we cited.¹ Our method is an extension of the method we use for exposure of isolated right bile duct injuries, described in 2001.⁷ It does not use hepatomies but lifts the liver off the right portal pedicle after dividing the attachment of the cystic plate to the right portal pedicle. This maneuver, which is clearly described in the article, is the key to exposing the entire anterior surface

of the pedicle without hepatotomy. The fact that the figure referred to at the end of their paper is similar to our Figure 9 is not surprising because one would expect a picture of the final result of dissection to be similar with any method. After all, the common purpose of all of these methods is pedicle isolation. Notably, Figures 1 to 8 in our article are quite different from those found in the papers of the authors of the letter. The preceding is not intended to devalue the contributions of the authors of the letter, whose papers have helped to explain and disseminate the use of pedicle isolation in liver surgery.

We are aware of the work of Takasaki.^{8,9} Takasaki has a unique interpretation of hepatic anatomy in which the liver is divided into three equal segments. He has achieved excellent results using his approach. We considered including his method but it would have required a detailed refutation of his anatomic concepts, which was beyond the scope of the article.

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