Bloodless Liver Resection

One of the most significant, prognostic factors determining postoperative mortality and morbidity after liver resection is the volume of operative blood loss. The results of liver resection have greatly improved in the past decade, largely owing to advances in surgical techniques to control intraoperative blood loss. Firstly, the testing and treatment of possible hemostatic abnormalities have contributed to preoperative optimization of patients undergoing liver resection. Vascular inflow occlusion using the Pringle maneuver is the traditional method to control intraoperative blood loss and can be extended by clamping of the suprahepatic and infrahepatic caval vein. Coming from the finger-fracture technique for parenchymal transection of the liver, several sophisticated devices are now available to dissect the liver, among which surgical staplers or tools based on local coagulation using radiofrequency technology. After completion of the resection, one can use topical hemostatic agents to deal with bile or blood oozing from the cut surface of the liver. With these techniques, it is now possible to perform safe liver resections even in patients requiring complex liver resections or in patients with compromised blood coagulation.

The methods to achieve bloodless liver resection have been the subject of symposia held in Amsterdam and in Athens, in 2005 and 2006, respectively. We are very pleased that most of the speakers of these two symposia have contributed to this special issue of *Digestive Surgery*, dedicated to bloodless liver resection.

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