## Laparoscopic liver resection in patients with clinically significant cirrhosis: an Eastern perspective

A sick heart can be revascularized, improving the health of the entire body. The function of a diseased kidney can be substituted by a dialysis machine. Just the act of cutting the abdominal wall can lead to death in a patient with underlying liver disease. And that the ducts and vessels of the liver are hidden from plain sight, have slowed the application of laparoscopy to liver surgery. As Dr. Blake Cady elegantly said nearly two decades ago: "Biology is King; selection of cases is Queen, and the technical details of surgical procedures are the Princes and Princesses of the realm who frequently try to overthrow the powerful forces of the King or Queen, usually to no long-term avail, although with some temporary apparent victories." As commendable as the effort in pushing technical boundaries by the HPB surgical community is, we must not forget that these pursuits must translate to improving survival and quality of life. It just may be that laparoscopic liver resection (LLR) produces a greater balance between the king and the queen.

Understanding disease biology is paramount, not just of the tumor, but the underlying liver parenchyma as well. The interplay of cirrhosis and portal hypertension baffles many, but truly understanding is at the foundation of the liver surgeon's clinical reasoning. The etiology of liver disease and hepatocellular carcinoma differs throughout the world. Hepatitis B is endemic in the East, whereas hepatitis C dominates in the West. Alcohol-related cirrhosis is pandemic. Non-alcoholic fatty liver disease is a rising threat throughout the world. For a multitude of reasons such as limited availability of deceased donor organs, criteria for liver resection in Asia often go beyond many of the established criteria used in Western countries. It is common to perform significant resections in cirrhotic patients in the East, even in those with portal hypertension.

It's been just over a year since the 2<sup>nd</sup> International Consensus Conference for Laparoscopic Liver Resection held in Morioka, Japan. I had the opportunity to participate in the meeting and listen to many issues that were debated between the pioneers and proponents of LLR. Amongst many things discussed—from the consensus of the current standard of care, technical aspects to outcomes measures—some aspects of LLR remain controversial to date. One of the areas of particular interest was the selection process of the most suitable lesions and patients who will best benefit from the minimally invasive approach.

In this special issue of *HepatoBiliary Surgery and Nutrition (HBSN)*, leading experts and teams from China, Hong Kong, Japan, Korea and Singapore draw from their vast experience to report and share their current thoughts on performing LLR in patients with clinically significant cirrhosis. In one article, the journey and learning curve of LLR is well articulated from recently graduated fellows who started their LLR experience in established western centres under experienced mentors and are now embarking and integrating back into their home institutions. We briefly turn from this unique Asian perspective to Europe, where a less transplant-driven system than in the United States provides the background for Belli and colleagues to discuss the role of LLR in patients with portal hypertension. colleagues succinctly summarize the role of LLR in patients with portal hypertension.

As our mentor, pioneer and authority on LLR, Professor Daniel Cherqui, states, the future of laparoscopic liver surgery is huge! Colleagues in the East and West must continue to communicate and learn from each other's experiences, and affirm the princes and princesses truly respect biology and benefit patients.

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