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## Difficult experiences in the laparoscopic liver surgery

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**Lecture**: Bleeding control during laparoscopic hepatectomy is more technically demanding than during open procedures, and intraoperative bleeding is one of the most common indications for conversion to an open approach. Both open and laparoscopic liver resections involve a

risk of major hepatic vein injury, which may in turn result in major intraoperative bleeding or air embolism. Control of bleeding during parenchymal transection is a major concern in the safety of laparoscopic hepatectomy. Easily applicable methods to control bleeding include compression with a gauze for several minutes, direct clipping with a laparoscopic endo-clip, and a vascular stapler. Laparoscopic suturing skills have also been helpful in controlling bleeding. Bleeding is much easier to control using hanging technique. Pulling and aiming at the hanging tape surrounding the transection plane facilitates exposure and bleeding control Laparoscopic approach for tumors close to the major hepatic veins are still considered technically challenging procedure. This procedure requires a high level of technical skills and shows a steep learning curve. We describe difficult experiences focusing on the bleeding control and effective exposure of the major hepatic vein to minimize the intraoperative blood loss.

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