

## **Standardization of Anatomic Segmentectomy VIII by Extrahepatic Glissonean Pedicle Isolation and HV Root - At First One-way Resection Based on Laennec's Capsule: Open and Laparoscopic Approaches**

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### **ABSTRACT**

Anatomic resection of the segment VIII (SVIII) of the liver (segmentectomy VIII) is technically demanding either in open or laparoscopic procedure. Our approaches to anatomic liver resections are composed of the extrahepatic Glissonean pedicle approach (GPA) to isolate hilar pedicles and hepatic vein (HV) root-at first one-way resection of liver parenchyma in the cranio-caudal direction starting from the landmark HV root. Both techniques are based on Laennec's capsule. Herein, we describe our standardized techniques for open and laparoscopic segmentectomy VIII. The standardized GPA to the Glissonean pedicle of SVIII (G-VIII) starts with cystic plate cholecystectomy and isolation of the anterior section pedicle by detaching the pedicle sheath from the Laennec's capsule. Isolation of segment V pedicle facilitates that of G-VIII using the subtraction method. After confirmation of the demarcation line by clamping G-VIII, parenchymal dissection starts from exposing the roots of middle (MHV) and right hepatic veins, which are tracked in the cranio-caudal direction. During such one-way parenchymal resection, G-VIII exposed below MHV is divided, and anatomic segmentectomy VIII is completed at the right edge of SVIII. In conclusion, segmentectomy VIII, either open or laparoscopic, can be standardized by extrahepatic GPA and HV-root at first cranio-caudal one-way parenchymal resection based on Laennec's capsule.

**Key words:** segment VIII, segmentectomy, laparoscopic liver resection, Laennec's capsule, Glissonean pedicle, hepatic vein